

# SPEKTRUM 2014



**DX9**



**SPEKTRUM**

**SPEKTRUM**

9-CHANNEL DSMX® TELEMETRY SYSTEM

DSMX  
3: Splendor  
42%  
237  
Spektrum  
2:05:12  
3 MODEL TYPES WIRELESS TRAINER VOICE ALERTS

**DX4R** DSMR

DSMR™ RACE SYSTEM



**SPEKTRUM**

# SPEKTRUM™

INNOVATIVE SPREAD SPECTRUM TECHNOLOGY



When the first Spektrum™ 2.4GHz RC transmitter was introduced in 2005, no one knew what its full impact would be. Just a few years later, Spektrum DSM® technology had completely changed the marketplace for RC transmitters and the way we used them.

Led by design and development team lead, Paul Beard, the innovations continued with the introduction of DSM2® technology. This brought with it MultiLink™, ModelMatch™, ServoSync™ and SmartSafe™ technologies. Hundreds of thousands of modelers soon came to rely on the safety and reliability that only Spektrum 2.4GHz systems could provide.

But it didn't stop there. In fact, the enormous success of the DSM2 protocol spurred even more innovation, and eventually led to DSMX® technology for aircraft and DSMR™ technology for boats and land-based vehicles. Both of these combine FHSS frequency agility with the power of a wideband spread spectrum signal. The result is the fastest, most reliable 2.4GHz RC technology available, particularly when operating in noisy 2.4GHz environments.

Most recently the Spektrum product line has grown to include aircraft transmitters with 18 fully-proportional channels, more receivers for every application imaginable and a growing assortment of servos and telemetry accessories. And let's not forget the exclusive Spektrum AirWare™ programming software that's so easy to use, the manual is almost unnecessary.

Sustainability is another driving force behind Spektrum technology. This is why the Spektrum Data Interface (SDI) and Spektrum community website were developed. Both ensure Spektrum users can download regular software and firmware updates that will lengthen the usefulness of their Spektrum investments. SDI and the community site also make it possible to share setups with friends or benefit from the expertise of others by downloading setups for popular aircraft.

In short, innovation is what the Spektrum development team does best and you can expect more of it in the future—the kind of innovation that makes RC easier, safer and, most of all, fun.

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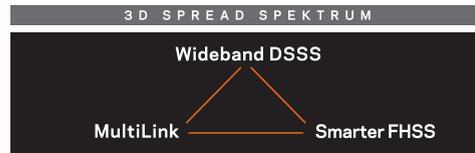
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# DSMX<sup>®</sup> TECHNOLOGY

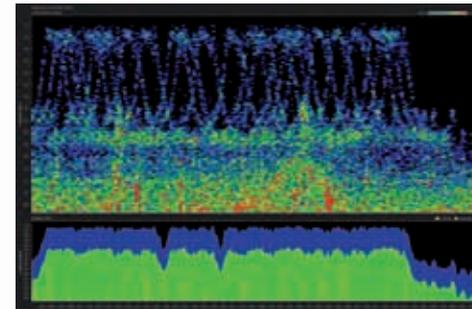
DSMX<sup>®</sup> technology is a three-dimensional 2.4GHz protocol that adds a smart FHSS protocol to the wideband spread spectrum signal and dual path redundancy of patented MultiLink™ technology that has made DSM2<sup>®</sup> technology so successful.



DSMX frequency shifts are coordinated using the most advanced FHSS algorithm ever seen in an RC application. Unlike other FHSS transmitters that all hop in the same fixed patterns, every DSMX transmitter has its own unique frequency shift pattern calculated using its GUID (Globally Unique Identifier). And each pattern uses a smaller portion of the 2.4GHz spectrum.

By adding the agility of unique frequency shifts to the superior interference resistance of a wideband signal, and limiting those shifts to a smaller portion of the 2.4 band, DSMX transmitters provide on-channel interference protection that is simply second to none. The result is quicker reconnection times and superb response in the noisiest 2.4GHz environment.

Another important aspect of DSMX technology is its conformity to EU regulations governing use of the 2.4GHz band. It's also completely compatible with older DSM2 technology, so you don't have to worry about replacing any DSM2 receivers you may already have.



Paul Beard talks about Spektrum and DSM:

*"I was determined to find a solution for pin-queuing and shoot-downs. I worked as a semiconductor RF engineer in the USA. I knew what was needed and thought I knew how to implement it. Faced with overwhelming skepticism from fellow RF engineers and leaders of leading RC equipment manufacturers, I pulled it off. Diversity was the epiphany - combining time, frequency and path diversity turned a poor performing link into something perfect. It is a major shift in our industry that delivers benefits on many levels - I am very proud to be a part of the ride."*



Paul has received awards from the British Model Flying Association and Fédération Aéronautique Internationale for his work on Spektrum™ technology. He has also been elected to the International Radio Controlled Helicopter Association Hall of Fame.



# SPEKTRUM™ FEATURES

## SAFETY FIRST

All Spektrum innovations work together to provide you with the safest, most reliable RC system available.

### DSMX® TECHNOLOGY

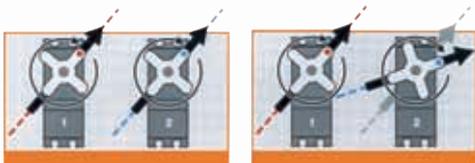
The interference-free, 2.4GHz protocol for RC aircraft that avoids signal collisions better than any other FHSS technology.

### DSMR™ TECHNOLOGY

Frequency-agile 2.4GHz control for RC surface vehicles based on the same wideband foundation used in DSMX technology.

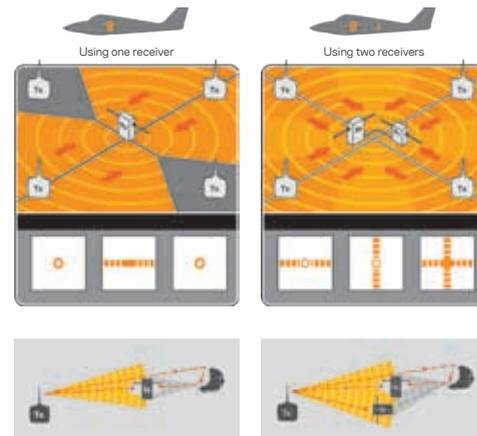
### SERVOSYNC™ TECHNOLOGY

ServoSync technology is built into DSM2 and DSMX transmitters with programmable mixes. It automatically recognizes which servos are connected via mixes and synchronizes their impulses so you experience an undeniable, locked-in feeling when you fly.



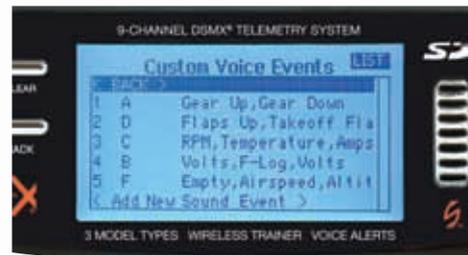
### MULTILINK™ TECHNOLOGY

Patented MultiLink receiver technology eliminates reflective signal fades and polarization blind spots by using small remote receivers that are connected to the main receiver and mounted at different polarizations throughout a model. The remote receivers also provide redundancy.



### VOICE ALERTS

The voice alert systems available on select Spektrum transmitters make it possible to keep tabs on important functions without ever taking your eyes off what you're flying. They can be programmed to call out what flight mode you've chosen or report telemetry information on demand. If an alarm goes off, you won't have to look at the transmitter display to see what's happening. The transmitter will tell you.

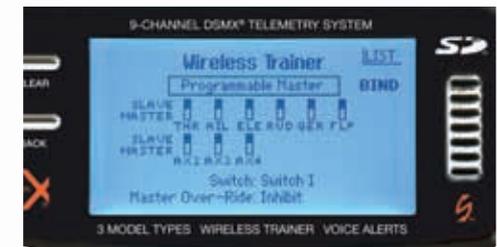


### CHECKLIST

The DX10t and DX18 transmitters come with a checklist feature that lets you create unique preflight checklists for each aircraft in model memory. You can also program it so that important checklist items like fuel level or receiver pack voltage must be "checked off" before the transmitter's RF signal is activated.

### WIRELESS TRAINER LINK

Another exciting feature available on newer Spektrum transmitters is the wireless trainer link that gives instructors the option to wirelessly "buddy box" with another DSM2/DSMX transmitter. Once bound to another transmitter, ModelMatch™ technology will allow the master transmitter to re-link without having to go through the bind process again.



### MODELMATCH™ TECHNOLOGY

ModelMatch technology\* assigns each receiver its own unique code when it's bound to your Spektrum transmitter. If the model you select from memory doesn't share the same receiver code as the model you're trying to fly, the aircraft's controls won't respond until the correct model is selected.

\*ModelMatch and ServoSync features are only available on Spektrum and JR® transmitters with built-in DSM2/DSMX technology. Not available on transmitters equipped with DSM2 modules.

# COMMUNITY

ALWAYS STAY UP TO DATE WITH THE SPEKTRUM COMMUNITY

If you have a Spektrum™ transmitter with Spektrum AirWare™ programming software and the Spektrum Data Interface (SDI), you'll always be up to date when you become part of the Spektrum community. Just register your transmitter at [community.spektrumrc.com](https://community.spektrumrc.com) and you'll receive alerts whenever a new version of Spektrum AirWare software is available. You can then download the new version onto an SD memory card and upload it to your transmitter via the SDI. You can also download model setups from the pros for many of the most popular Horizon Hobby® models.



Join the Spektrum community at:  
<https://community.spektrumrc.com>



Joining the Spektrum community also gives you a direct line to the Spektrum development team, so you can have any issues with your Spektrum product answered right away. You'll also be among the first to know about exciting new Spektrum product releases.

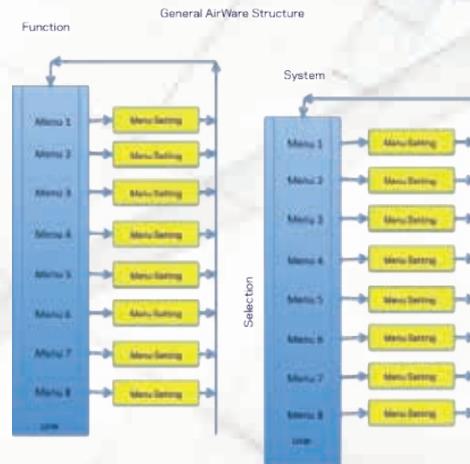


# SOFTWARE / X-PLUS™ TECHNOLOGY

SPEKTRUM™ AIRWARE™ SOFTWARE: REMARKABLY EASY TO USE.

Developed exclusively by Horizon Hobby engineers and software developers, Spektrum AirWare transmitter software gives you all the expert programming functions you could want without requiring you to be a programming expert to use them.

It starts with the SimpleScroll™ programming interface that makes navigating menus and changing settings as simple as “roll and click.” It’s so simple, many first-time users can accomplish complex programming tasks without ever opening the manual. All information is presented in crisp, clear detail on big LCD screens. Programming functions like wing and swash servo setups, expo, throttle curves and more are graphically depicted so you can better visualize the changes you’re making.



Software functions are divided into two menus, the system menu and the functions menu. Five menu languages are available: English, German, French, Italian and Spanish. The system menu handles fundamental adjustments such as model type, model name, wing or swash type, trainer system, control mode, display functions and menu language.

The functions menu is the main menu for a specific model that you’ve already set up in the system menu. Here you can adjust things like dual rates, expo, telemetry, timers, mixes and more. You can also adjust the travel, center, absolute travel and speed of every servo in your model. also adjust the travel, center, absolute travel and speed of every servo in your model. The servo setting submenu in DX6x, DX7s, DX8, DX9, DX18t and DX18x transmitters includes a servo monitor that lets you graphically see the results of the changes you make.



## X-PLUS™ TECHNOLOGY -

With an X-Plus-capable transmitter and receiver, you can add up to eight more fully-proportional channels with an X-Plus channel expansion module. Just connect the X-Plus module and additional servos to a compatible receiver and bind it to your transmitter. You can then activate the X-Plus menu using the Frame Rate menu and assign the additional servos to the desired functions. You’ll also be able to adjust the travel, direction, absolute travel, center and speed for each of the additional servos.

It’s the perfect solution for any modeler who needs more channels for special functions such as lights, speed brakes and gear doors



# BIND-N-FLY® TECHNOLOGY

ONE TRANSMITTER. ENDLESS POSSIBILITIES.

Bind-N-Fly® technology is a revolution in RC fun that lets you enjoy the convenience of a ready-to-fly airplane, helicopter or glider using the Spektrum transmitter you already own and love. Each Bind-N-Fly aircraft comes out of the box with servos, a power system and a Spektrum receiver installed. You don't have to spend hours building or pay for a disposable transmitter that you'll never use. Aside from charging batteries and maybe a few minutes of minor assembly, all you have to do is bind its receiver to your Spektrum transmitter and fly!

## So Many Choices. So Many More to Come.

Your Spektrum transmitter is the key to a fantastic selection of Bind-N-Fly aircraft from the biggest names in RC.

- › There are ParkZone® and E-flite® ultra micros, many of which include the revolutionary AS3X® System that smoothes out the effects of wind and turbulence so you feel like you're flying a much bigger airplane.

- › Fly a whole range of exciting Blade® helicopters that includes everything from ultra micros for beginners to awesome, 500-size 3D machines for experienced pilots.
- › And let's not forget the fantastic selection of thrilling warbird park flyers, modern scale subjects like the ParkZone ICON A5 seaplane and advanced designs like the big E-flite Carbon-Z® Cub. There's even a Bind-N-Fly version of the magnificent Hangar 9® Taylorcraft Giant-Scale airplane that boasts an 80.5 inch wingspan and is powered by a Zenoah™ 26cc gas engine.

And there are always more BNF aircraft in the works, so when you choose a Spektrum transmitter, your possibilities with Bind-N-Fly technology truly are endless.



# DX18 - FLY PRO CLASS

SPM18100

Fly with the Spektrum™ DX18, and you'll be flying with the most impressive suite of features ever made available in a handheld transmitter. These include 18 fully-proportional channels, voice alerts, built-in telemetry, extensive programming for airplanes, helicopters and sailplanes and more. Its ergonomics are also some of the most advanced you'll find in any pro-class transmitter. All sticks, switches and knobs fall within easy reach. Its weight has been balanced for maximum comfort. You can even wirelessly link with other Spektrum transmitters instead of using a trainer cord.

The centerpiece of the DX18, though, is its incredibly advanced Spektrum AirWare™ software. Ten glider flight modes, enhanced wing-type programming, a built-in sequencer and servo balancer - you get all this and more, including exclusive Electronic E-ring technology that prevents mixed servos from being over driven.

A large, backlit LCD screen makes navigating the programming menus remarkably easy. And with the Spektrum Data Interface and community website you'll always be up to date with the latest software and firmware. Just download updates from the community site and upload them to your transmitter using the included SD card.

## INCLUDED

The DX18 comes out of the box in mode 1 or 2 and includes:

- › Spektrum AR9020 DSMX® X-Plus receiver
- › 2600mAh LiPo transmitter battery
- › Global power supply
- › DX18 neckstrap
- › Manual
- › Bind plug

## NEW FOR 2014

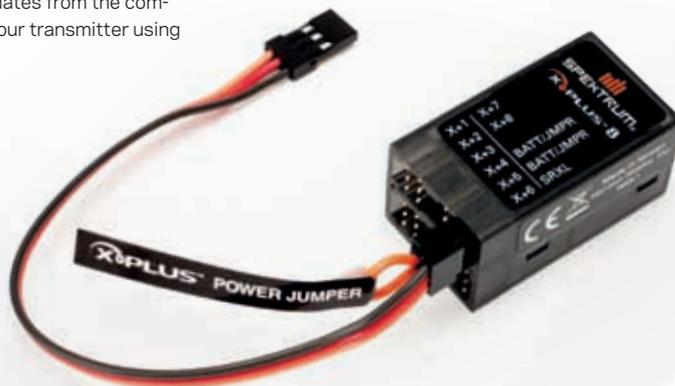
- › Programmable Voice Alerts
- › Wireless Trainer Link
- › 250-model memory
- › 6 aileron wing type
- › Canard mixing with elevon wing type
- › 0.5% mixing increments
- › Origin mixing
- › Expanded model memory avatar selection
- › Direct access to servo monitor from main screen

## FEATURES

- › 18 fully-proportional channels
- › Superior Spektrum DSMX 2.4GHz technology
- › Voice alerts
- › Wireless trainer function
- › Spektrum AirWare software for airplanes, helis and gliders
- › User selectable modes (1-4)
- › 5 menu languages: EN, DE, FR, IT and SP
- › User defined sound options
- › Lightweight, balanced case
- › Diversity antenna (vertical array with horizontal array in handle)
- › 250-model internal memory
- › Compatible with model files from DX6, DX9 and DX18t transmitters
- › Expanded model memory avatar selection
- › Spektrum Data Interface SD card reader for sharing setups, expanding model memory and uploading software updates
- › Large backlit 192 x 96 LCD screen
- › SD card
- › X-Plus channel expansion technology
- › 11 airplane wing types
- › 6 airplane tail types
- › 2 canard options (1- and 2-servo) with elevon wing type
- › 6 swashplate types
- › 5 airplane and heli flight modes
- › 5 sailplane wing types
- › 3 sailplane tail types
- › 2 motor glider configurations
- › 10 sailplane flight modes
- › Freely assignable channels
- › Direct access to servo monitor from main screen
- › LiPo battery and integrated charger
- › Easy-to-use flight mode programming tools
- › User-defined flight mode names
- › Flight mode priority switch
- › Absolute servo travel definition
- › Built-in servo balancer with 7-point curve
- › Built-in servo sequencer
- › with time delay
- › Preflight checklist
- › Telemetry with data log
- › 16 programmable Mixes
- › 0.5% mixing increments
- › Origin mixing
- › 2-timers
- › 2048 resolution



**SPMAR9020**—  
Includes Spektrum AR9020 9-channel DSMX receiver with X-Plus technology.



**SPMPX8000**—  
Add eight extra channels to the included AR9020 receiver with the X-Plus 8 Channel Expansion Module, sold separately.

## SPECIFICATIONS FOR DX18

Channels	18
Frequency	2.4GHz
Protocol	DSMX (EN 328 compatible)
Model Memory	50
Modes	1,2,3,4 (user selectable)



SPM18100	DX18 18-Channel DSMX Transmitter with Receiver
SPMAR9020	AR9020 9-Channel DSMX Receiver with X-Plus Technology
SPMXP8000	X-Plus 8 Channel Expansion Module



# DX18t - THE SPEKTRUM™ SYSTEM FOR THE SPECIALIST

SPMR2810

While the Spektrum DX18t tray transmitter is designed primarily for the European market, it brings innovations to RC users that are sure to make it popular with a much wider audience.

For starters, it comes equipped with 18 fully-proportional channels, voice alerts, a wireless trainer function and extensive programming functions for just about anything you want to fly. It's also one of the most comfortable tray transmitters ever designed. The Spektrum development team has done a fantastic job of balancing its mass and keeping overall weight to a minimum. They've also given the DX18t large handrests and optimized the stick spacing so your fingers and wrists stay relaxed during extended periods of use.

Other advanced ergonomic features include an integrated shoulder harness, adjustable stick tension, adjustable friction and throttle straps that can be changed without having to open the case.



Serial Stick Switches with 2 Push Buttons



SPMA3010\_\_\_  
Optional Short Helicopter Sticks



SPMA3012\_\_\_  
Optional 3-Way Stick Switches

Stick ends with switches are available separately. The switches can be assigned to any function you wish. The DX18t transmitter also gives you the option of customizing the main switches with different function modules for different applications. Just unplug the old module and plug in a new one.

The integrated LiPo battery provides over 10 hours of operation, and a sophisticated charging system in the DX18t transmitter lets you recharge without removing the battery from the transmitter.

The DX18t includes:

- › Function Module L1
- › Function Module R1
- › Shoulder harness
- › Anodized orange stick ends
- › 2500mAh Li-Po battery
- › Global power supply
- › Decal sheet
- › Manual
- › Adjustment tools





Folding Rubber Antenna

Interchangeable, Plug-In Function Modules

Adjustable Tilt Switch Panel

## NEW FOR 2014

- › Programmable Voice Alerts
- › Wireless Trainer Link
- › 250-model memory
- › 6 aileron wing type
- › Canard mixing with elevon wing type
- › 0.5% mixing increments
- › Origin mixing
- › Expanded model memory avatar selection
- › Direct access to servo monitor from main screen

Integrated Shoulder Harness Arms



Storage Bays under Handrest for Tools and Bind Plugs



SimpleScroll™ Roller Programming Interface

Large, Backlit LCD Screen

## FEATURES

- › 18 fully-proportional channels
- › Superior Spektrum DSMX 2.4GHz technology
- › Voice alerts
- › Wireless trainer function
- › Spektrum AirWare software for airplanes, helis and gliders
- › User selectable modes (1-4)
- › 5 menu languages: EN, DE, FR, IT and SP
- › User defined sound options
- › Unique tray design with accessory storage and integrated shoulder harness arms
- › Fold rubber antenna (vertical array with horizontal array in handle)
- › 250-model internal memory
- › Compatible with model files from DX6, DX9 and DX18 transmitters
- › Expanded model memory avatar selection
- › Spektrum Data Interface SD card reader sharing setups, expanding memory and software updates
- › Large backlit 192 x 96 LCD screen
- › X-Plus channel expansion technology
- › 11 airplane wing types
- › 6 airplane tail types
- › 2 canard options (1- and 2-servo) with elevon wing type
- › 6 swashplate types
- › 5 airplane and heli flight modes
- › 5 sailplane wing types
- › 3 sailplane tail types
- › 2 motor glider configurations
- › 10 sailplane flight modes
- › Freely assignable channels
- › Direct access to servo monitor from main screen
- › LiPo battery and integrated charger
- › Easy-to-use flight mode programming tools
- › User-defined flight mode names
- › Flight mode priority switch
- › Absolute servo travel definition
- › Built-in servo balancer with 7-point curve
- › Built-in servo sequencer with time delay
- › Preflight checklist
- › Telemetry with data log
- › 16 programmable Mixes
- › 0.5% mixing increments
- › Origin mixing
- › 2 timers
- › 2048 resolution

# DX18t

The DX18t transmitter features the unrivalled speed and security of DSMX® technology that conforms to all European EN 328 standards for 2.4GHz RC systems. It's also completely compatible with all DSM2 receivers.

The integrated Spektrum Data Interface, with the included SD card, makes it possible for you to keep your DX18t transmitter up to date with the latest Spektrum AirWare software and firmware. Out of the box the DX18t transmitter features built-in telemetry that lets you monitor vital information about your model's battery voltage, motor temps and more.

Its proven Spektrum™ Airware™ software includes features like preflight checklists, matrix programming, adaptive flight trim and 10 available flight modes. All have been rigorously field tested for ease of use and reliability.

In trainer mode, the DX18t transmitter empowers instructors with all kinds of options that allow them to limit the functions available to a student so that training is as safe and systematic as possible. It also gives you the option to wirelessly link with another Spektrum transmitter instead of using a trainer cord.

## SPECIFICATIONS FOR DX18t

Weight	40.9 oz (1160 g) with battery
Dimensions L x W x H (excluding sticks and antenna)	8.3 x 9.9 x 2.8 in (210 x 250 x 70mm)
Channels	18
Frequency	2.4GHz
Protocol	DSMX (EN 328 compatible)
Model Memory	50
Modes	1,2,3,4 (user selectable)



SPM6715\_\_\_  
DX18t Transmitter Case



SPM2850\_\_\_  
Function Module L1



SPM2851\_\_\_  
Function Module L2



SPMR2810	DX18t Transmitter Only
SPMAR9020	AR9020 9-Channel DSMX Receiver with X-Plus
SPMXP8000	X-Plus 8 Channel Expansion Module
SPM2850	DX10t Function Module L1
SPM2851	DX10t Function Module L2
SPM2852	DX10t Function Module R1
SPM2853	DX10t Function Module R2
SPM2854	DX10t Function Module R3
SPM2855	DX10t Function Module R4
SPM2860	Shoulder Harness
SPM6715	DX18t Transmitter Case
SPMA3010	37mm Sticks, Orange
SPMA3011	52mm Sticks, Orange
SPMA3012	52mm Sticks with 3-Way Switch, Orange
SPMA3020	Spektrum Deluxe Shoulder Harness



SPM2860\_\_\_  
Shoulder Harness



SPMAR9020\_\_\_  
Spektrum AR9020 9-Channel  
DSMX Receiver with X-Plus



SPM2852\_\_\_  
Function Module R1



SPM2853\_\_\_  
Function Module R2



SPM2854\_\_\_  
Function Module R3



SPM2855\_\_\_  
Function Module R4

# DX9 – THE 9-CHANNEL WITH A VOICE

## SPMR 9900

The DX9 gives you more than the finest programming and signal response available in a 9-channel transmitter. Like the DX18 and DX18t transmitters, it too comes with a wireless trainer function and the most sophisticated voice alert system in its class.

You can program it to call out what flight mode has been chosen when switching from one to another. It can also be programmed to call out specific values for voltage, temps, or any other critical telemetry info, on demand. If an alarm goes off, you don't have to take your eyes off what you're flying to look at the display screen. The DX9 will tell you.

The DX9 also boasts enough on-board memory for up to 250 models. Rarely, if ever, will you need to juggle models between transmitter memory and your SD card. Navigating model memory is easy too. Only memory slots with model settings saved to them will appear. You won't have to scroll through empty slots or move models around if one is deleted.

The DX9 includes:

- › 2000mAh 2S Li-Ion transmitter battery
- › SD card
- › 12V global power supply
- › Custom DX9 neckstrap
- › Bind plug

## FEATURES

Advanced programming features for airplanes, helicopters and sailplanes rival those of much more expensive systems.

### AIRPLANE

- › 10 Wing types: Normal, Dual Aileron, Flaperon, 1 Aileron 1 Flap, 1 Aileron 2 Flaps, 2 Aileron 1 Flap, 2 Aileron 2 Flaps, Elevon, Elevon-B, 4 Aileron
- › 6 Tail types: Normal, V-Tail A, V-Tail B, Dual Elevator, Dual Rudder, Dual Rudder/Elevator
- › Flap delay and elevator compensation
- › 5 Flight modes
- › Dual rates and expo
- › 10 Programmable mixes

### HELICOPTER

- › Active gyro trim
- › 7-Point throttle curve
- › 7-Point pitch curve
- › 7-Point tail curve
- › 7 Swash plate types: Normal, 3 Servos 120°, 3 Servos 135°, 3 Servos 140°, 3 Servos 90°, 4 Servos 90°, 2 Servos 180°
- › Swash plate timing
- › 5 Flight modes
- › Dual rates and expo
- › 10 Programmable mixes

### SAILPLANE

- › 5 Wing types: 1 Servo, 2 Aileron, 2 Aileron 1 Flap, 2 Aileron 2 Flap, 4 Aileron 2 Flap
- › 3 Tail types: Normal V-Tail A, V-Tail B
- › Flap delay and elevator compensation
- › 10 Flight modes
- › Dual rates and expo
- › 10 Programmable mixes

### BASIC SOFTWARE FEATURES

- › 5 menu languages: EN, DE, FR, IT and SP
- › Compatible with model files from DX6, DX18 and DX18t transmitters

Weight	29.1 oz (826 g)
Dimensions L x W x H (excluding sticks, handle and antenna)	7.3 x 7.1 x 2.6 in (185 x 180 x 65mm)
Channels	9
Frequency	2.4GHz
Protocol	DSMX® (EN 328 compatible)
Model Memory	250
Modes	1, 2, 3, 4 (user selectable)

SPMR9900      DX9 Transmitter Only



# DX8 – PROVEN. POPULAR. POWERFUL.

## SPMR8810

The DX8 8-channel transmitter has won the hearts of pilots the world over with its intuitive programming, built-in telemetry and superb ergonomics. In fact, it's the only 8-channel that gives you all these advanced capabilities plus the proven speed and precision of Spektrum 2.4GHz DSMX control.

## FEATURES

The DX8's intuitive programming includes most any function an expert pilot could want, but you don't have to be an expert to use it.

## AIRPLANE

- › 8 wing types: Normal, Dual Aileron, Flaperon, 1 Aileron + 1 Flap, 1 Aileron + 2 Flaps, 2 Aileron + 1 Flap, 2 Aileron + 2 Flaps, Elevon, Elevon-B
- › 5 tail types: Normal, V-Tail, Dual Elevator + 1 Rudder, Dual Rudder + 1 Elevator, Dual Rudder + Dual Elevator
- › 3-position flap with elevator compensation
- › Adjustable flap speed
- › Programmable aileron differential
- › 5-point graphic throttle curve
- › Aileron rudder mixes
- › Elevator/flap mixes
- › 6 programmable mixes

## HELICOPTER

- › Governor programming
- › Active governor trim
- › Active gyro trim
- › 5-point graphic throttle and pitch curves
- › Swashplate timing
- › 6 swashplate types
- › Electronic E-ring

## BASIC SOFTWARE FEATURES

- › Active servo monitor
- › Vibe and audio alerts
- › Telemetry active range testing
- › User selectable modes (1-4)
- › User-assigned switch function
- › User-defined channel names
- › Adjustable trim steps
- › 5 menu languages: EN, DE, FR, IT and SP
- › Compatible with DX7s model files

Weight	29.1 oz (826 g)
Dimensions L x W x H (excluding sticks, handle and antenna)	7.3 x 7.1 x 2.6 in (185 x 180 x 65mm)
Channels	8
Frequency	2.4GHz
Protocol	DSMX (EN 328 compatible)
Model Memory	30
Modes	1, 2, 3, 4 (user selectable)

## SAILPLANE ADD-ON SOFTWARE\*

- › 4 flight modes
  - › 4 wing types: 1 Aileron, 2 Aileron, 2 Aileron + 1 Flap, 2 Aileron + 2 Flap
  - › 3 tail types: Normal, V-Tail A, V-Tail B
  - › Motor control assignment
  - › Camber system
  - › Camber presets
  - › Flap-to-elevator curve mix
  - › Aileron-to-flap mix
  - › Aileron-to-rudder mix
  - › Elevator-to-flap mix
  - › 2 free programmable mixes
  - › Independent aileron trim per flight mode
- \*Available as a free update when you register your transmitter

SPMR8810 DX8 8-Channel Transmitter Only

The DX8 includes:

- › DX8 neck strap
- › 2000mAh Li-Ion battery
- › Global power supply
- › Manual
- › Bind plug





# FREE DX8 SAILPLANE SOFTWARE ADD-ON AVAILABLE!



The DX8 transmitter has always possessed some of the most powerful airplane and helicopter programming in its class. Now you can add an impressive suite of sailplane software too. All it costs you is the time it takes to register your DX8 at [community.spektrum.com](http://community.spektrum.com). Once registered, you can download the software for free.

Some of the most compelling sailplane programming features include:

## FOUR FLIGHT MODES

Assign as many as four flight modes to any two switches. Modes include Launch, Cruise, Speed and Land.

## FOUR WING TYPES AND THREE TAIL TYPES

Several of the most popular sailplane wing and tail types have been preprogrammed into the software to make wing and tail servo setup simple.

### WING

- › 1 aileron for RES and basic sailplanes
- › 2 aileron for discus launch and slope soaring sailplanes
- › 2 aileron + 1 flap for sailplanes with a single flap servo
- › 2 aileron + 2 flap for full function competition and scale sailplanes

### TAIL

- › Normal
- › V-Tail A
- › V-Tail B

## MOTOR CONTROL ASSIGNMENT

The motor control for electric powered gliders can be assigned to the throttle stick or one of the programmable switches and buttons.

## CAMBER SYSTEM

Trailing edge camber can be adjusted using a control stick or knob. Brake and crow can also be set per flight mode.

## CAMBER PRESETS

Different camber values for flaps, aileron and elevator can be set for each of the four available flight modes.

## NUMEROUS SAILPLANE MIXES

A number of different preset mixes are available.

- › Flap-to-elevator curve mix
- › Aileron-to-flap mix
- › Aileron-to-rudder mix
- › Elevator-to-flap mix with offset for snap flap mixing
- › Two free mixes you can define

## FLIGHT MODE DEPENDENT ELEVATOR TRIM

Set different elevator trims for each flight mode.

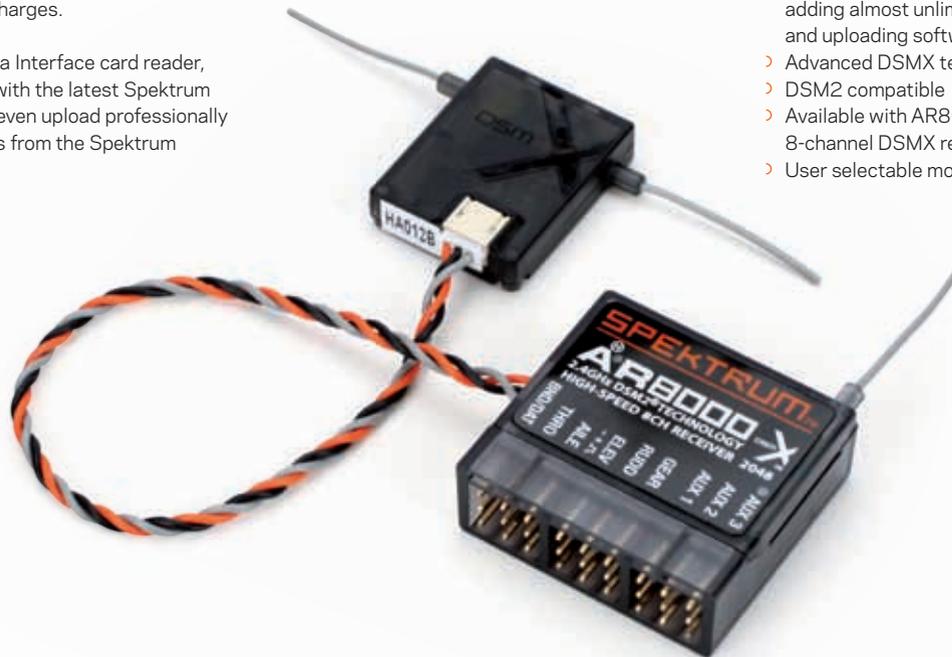
# DX7s – GET MORE FROM A 7-CHANNEL

SPM7800

The full-range Spektrum™ DX7s transmitter outshines everything else in its class. Based on the popular Spektrum DX8 model, it boasts integrated telemetry, user-selectable control modes, revo mixes, throttle-activated timers and 20-model memory.

Other standout features include advanced ergonomics, Spektrum AirWare™ software, quad-bearing gimbals and rubber, no-slip grips that provide a sense of comfort that's second to none. It's also compatible with LiPo batteries for those who want extra flying time between charges.

Plus, with its Spektrum Data Interface card reader, you'll always be up to date with the latest Spektrum AirWare software. You can even upload professionally programmed aircraft setups from the Spektrum community website too.



## FEATURES

- › Large 128 x 64 LCD screen
- › Airplane and helicopter programming
- › 2048 resolution
- › 2000mAh NiMH transmitter battery
- › 20-model internal memory
- › Spektrum Data Interface SD card reader for sharing setups, adding almost unlimited memory and uploading software updates
- › Advanced DSMX technology
- › DSM2 compatible
- › Available with AR8000 8-channel DSMX receiver
- › User selectable modes (1-4)
- › ModelMatch™ technology that prevents 'wrong model' crashes
- › Range test
- › Real-time telemetry capability
- › ServoSync servo synchronization for CCPM and dual servo mixes
- › Throttle or switch activated timer
- › Global power supply with international adapters
- › In-flight gyro gain adjustment
- › 3-position flaps with delay and elevator compensation
- › Language select (English, German, Italian and French)
- › Low battery warning
- › Programmable flaps system
- › 8 airplane wing types
- › 5 airplane tail types
- › 4 swashplate types
- › Swashplate mixes
- › Trainer mode
- › Region select for international use
- › 3 flight modes
- › 3 programmable dual rates
- › 3 programmable helicopter mixes
- › Digital trims
- › Additional micro trim
- › 5 menu languages: EN, DE, FR, IT and SP
- › Compatible with DX8 model files

The DX7s includes:

- › AR8000 8-channel DSMX receiver
- › 2000mAh 4.8V Ni-MH battery
- › Global power supply
- › Manual
- › Bind plug

Weight	28.5 oz (807 g) with battery
Dimensions L x W x H (excluding sticks, handle and antenna)	7.3 x 7.1 x 2.6 in (185 x 180 x 65mm)
Channels	7
Frequency	2.4GHz
Protocol	DSMX (EN 328 compatible)
Model Memory	20
Modes	1,2,3,4 (user selectable)

  
SPEKTRUM.

SPMAR8000— Available with Spektrum AR8000  
8-Channel DSMX Receiver



**SPMB4000LPTX**— Significantly boost the amount of flying time between charges with this long-lasting 4000mAh LiPo transmitter battery pack, sold separately.



SPM7800	DX7s 7-Channel DSMX Transmitter with AR8000 Receiver
SPMAR8000	AR8000 8-Channel DSMX Receiver
SPMB4000LPTX	4000mAh LiPo Transmitter Battery: DX7s/DX8

# DX6 - THE OVERACHIEVER

SPM6700

The DX6 has been designed from the ground up to deliver way more than you would ever expect from a 6-channel transmitter in its price range. Instead of having to content yourself with a handful of settings for a couple of model types, the remarkably affordable DX6 gives you an abundance of programming features for airplanes, helicopters and sailplanes. You also get other extras like voice alerts, a wireless trainer link and enough internal memory for up to 250 models.

SPM6700 DX6 6-Channel DSMX® Transmitter with AR610 Receiver

- › Channels: 6
- › Frequency: 2.4GHz
- › Protocol: DSMX (EN 328 compatible)
- › Model Memory: 250
- › Modes: 1, 2, 3 or 4 (user selectable)

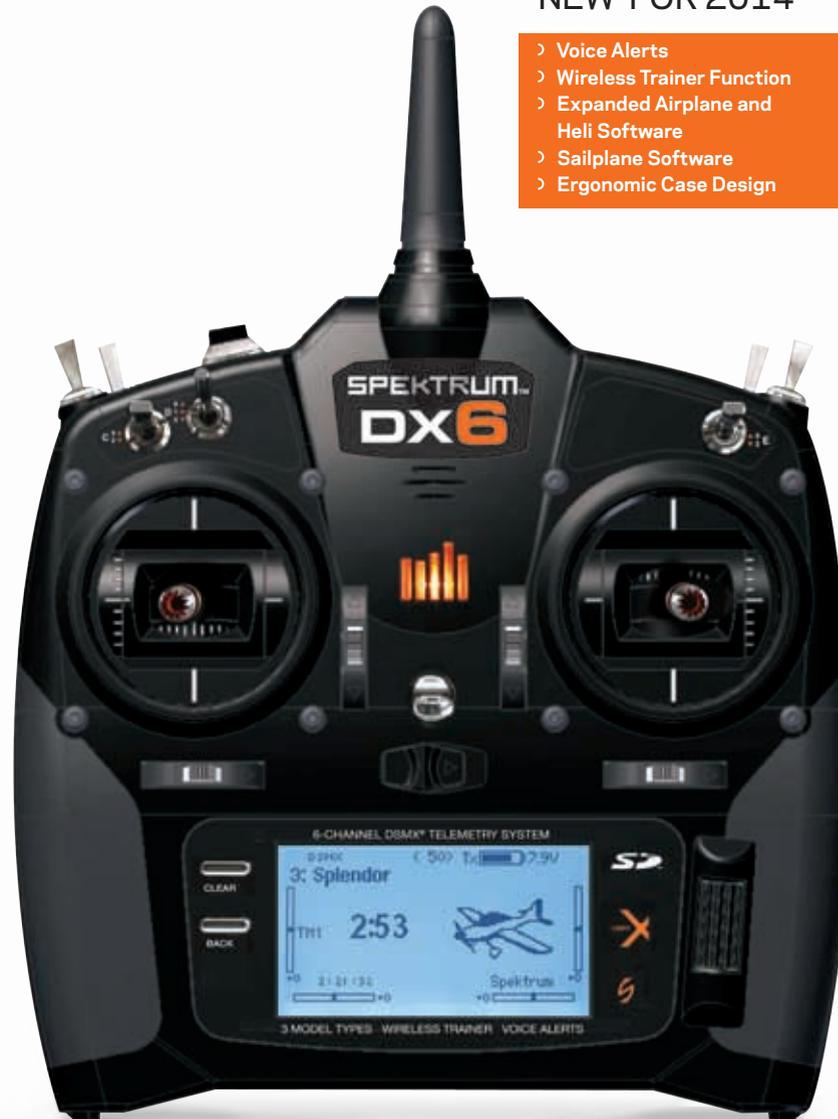
The DX6 includes:

- › AR610 6-channel DSMX receiver
- › 4 AA alkaline batteries
- › Manual
- › Adjustment tools
- › Bind plug

  
**SPEKTRUM.**

NEW FOR 2014

- › Voice Alerts
- › Wireless Trainer Function
- › Expanded Airplane and Heli Software
- › Sailplane Software
- › Ergonomic Case Design



FEATURES

- › New ergonomically designed case with comfortable rubber grips
- › 250 model internal memory
- › Compatible with model files from DX9, DX18, DX18QQ and DX18t transmitters
- › Direct access to system setup from function menu—no need to power off
- › Voice alerts
- › Wireless trainer function
- › 5 menu languages: EN, DE, FR, IT and SP
- › Large, backlit LCD screen
- › Airplane, helicopter and sailplane software
- › 4 sailplane wing types and 3 tail types
- › 7 aircraft wing types and 5 tail types
- › 7 swashplate types
- › 5 programmable mixes – normal or 7-point curve
- › Dual aileron, elevon, and V-tail differential
- › 7-point throttle curves for airplanes and helicopters
- › 7-point pitch curve for helicopters
- › Intuitive SimpleScroll™ programming interface
- › Advanced DSMX® technology (compatible with DSM2® technology)
- › SD card slot for updating firmware, expanding memory and sharing setups
- › Includes full-range AR610 6-channel receiver
- › Smooth, precise quad-bearing gimbals
- › Supports the most popular Spektrum telemetry sensors
- › 4 AA Alkaline batteries included—optional Li-Ion battery with charger available separately
- › Activate bind mode from the menu or a button without having to power off
- › User selectable modes (1-4)

SPMAR610\_\_

Available with Spektrum  
AR610 6-Channel DSMX Receiver



# DX6i, DX5e & DX4e - THE ECONOMICAL

Don't settle for imitation Spektrum technology just because you are on a budget. These incredibly affordable Spektrum transmitters give you the advantage of DSMX® 2.4GHz technology plus the unbeatable service and support of Horizon Hobby that comes with all genuine Spektrum products. They also make a great way to get into the exciting world of Bind-N-Fly aircraft without spending a lot of money.

## DX6i

### FEATURES

- › Advanced DSMX technology
- › DSM2 compatible
- › Airplane and heli programming
- › 10-model memory
- › 3 wing types: normal, dual aileron and delta
- › V-tail mixing
- › 2 flight modes and throttle hold (heli)
- › 5-point throttle and pitch curves (heli)
- › Revolution mixing and gyro adjust (heli)
- › Digital trims
- › Dual rate and expo
- › LCD screen
- › Trainer function
- › Servo reverse, travel adjust and sub trim
- › Servo monitor
- › Timer
- › Range test



- › Weight: 21.8 oz (617 g)
- › Dimensions L x W x H (excluding sticks, handle and antenna) 7.4 x 7.3 x 2.4 in (189 x 186 x 60mm)
- › Channels: 6
- › Frequency: 2.4GHz
- › Protocol: DSMX (EN 328 compatible)
- › Model Memory: 10
- › Modes: 1 or 2

SPM66101	DX6i 6-Channel DSMX Transmitter with AR6210 Receiver, Mode 1
SPM6610	DX6i 6-Channel DSMX Transmitter with AR6210 Receiver, Mode 2
SPMR66101	DX6i 6-Channel DSMX Transmitter Only, Mode 1
SPMR6610	DX6i 6-Channel DSMX Transmitter Only, Mode 2

## DX5e

### FEATURES

- › Advanced DSMX technology
- › DSM2 compatible
- › Digital trims
- › Dual rate
- › Delta mix
- › 5th channel with 3-position switch
- › Trainer function
- › LED battery voltage indicator
- › Audio low voltage alarm
- › Servo reverse
- › Range test



- › Weight: 19.2 oz (544 g)
- › Dimensions L x W x H (excluding sticks, handle and antenna) 7.5 x 7.3 x 2.4 in (189 x 186 x 60mm)
- › Channels: 5
- › Frequency: 2.4GHz
- › Protocol: DSMX (EN 328 compatible)
- › Model Memory: 1
- › Modes: 1 or 2

SPM55101	DX5e 5-Channel DSMX Transmitter with AR600 Receiver, Mode 1
SPM5510	DX5e 5-Channel DSMX Transmitter with AR600 Receiver, Mode 2
SPMR55101	DX5e 5-Channel DSMX Transmitter Only, Mode 1
SPMR5510	DX5e 5-Channel DSMX Transmitter Only, Mode 2

## DX4e

### FEATURES

- › Advanced DSMX technology
- › DSM2 compatible
- › Dual rate
- › ACT switch
- › LED battery voltage indicator
- › Audio low voltage alarm
- › Servo reverse
- › Range test
- › 3-position switch for use with Bind-N-Fly(r) aircraft equipped with SAFE technology



- › Channels: 4
- › Frequency: 2.4GHz
- › Protocol: DSMX (EN 328 compatible)
- › Model Memory: 1
- › Modes: 1, 2, 3, 4

SPMR4400	DX4e DSMX 4-Channel Full-Range Transmitter Only Modes 2 and 4
SPMR44001	DX4e DSMX 4-Channel Full-Range Transmitter Only Modes 1 and 3

# TEAM HORIZON -

SPEKTRUM TECHNOLOGY HAS PROVEN ITSELF TIME AND AGAIN  
IN THE HANDS OF SOME OF THE BEST PILOTS IN THE WORLD.

# EXCELLENCE IN THE FIELD



**Alan Szabo Jr.**  
Alan is a veteran 3D heli pilot who has won numerous international and national events. And he loves to help out wherever he can. If you see Alan at an event, say "Hi!"



**Tim Stadler**  
Tim lives and breathes radio controlled airplanes. His performances exhibit the pinpoint precision of a pilot with decades of competition experience, yet the only proficiency judge he's stood before has been a cheering crowd.



**Mike McConville**  
If you've spent any time flying sport and aerobatic ARFs, chances are good you've flown one of Mike's designs. In addition to being a world-class aerobatic competitor, he is also a lead product developer at Horizon Hobby for Hangar 9, E-flite and ParkZone brands.



**Ali Machinchy**  
You could say that radio control is in his blood. Ali is a world-class RC expert and a first-place Top Gun Champion. A showman through and through, Ali can fly anything with wings and have you totally captivated.

The new generation of Spektrum AS3X receivers can be programmed at home or at the field using popular mobile devices or a PC.

# AS3X<sup>®</sup> SYSTEM

AGILITY AND STABILITY IN PERFECT HARMONY

Since the beginning of aeromodeling, agility and stability have been at odds. Build a model to be more stable and you lose some of the crisp response you need for aggressive aerobatics. Make a plane more agile and you'll find yourself working harder to keep it in a desired attitude. No more! With a Spektrum™ receiver equipped with the AS3X (Artificial Stabilization - 3-axis) System, you can expand a model's agility and stability without having to give up one for the other.

# AS3X<sup>®</sup>



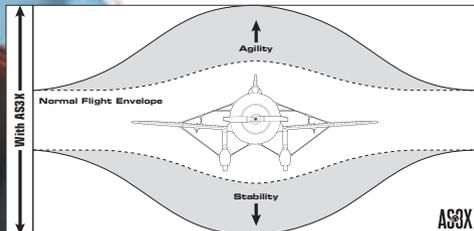
# SPEKTRUM AS3X RECEIVERS

## HOW IT WORKS

The AS3X System is a combination of sophisticated 3-axis sensing technology and exclusive flight control software developed by expert RC pilots. When used in a Spektrum receiver, this system works behind the scenes to keep a model precisely in the attitude you command without limiting your control or the plane's agility. You will simply feel like you're flying an expertly-tuned model that does exactly what you want.

In a 3D airplane, AS3X technology gives you all the control authority you need for crisp roll and pitch rates while at the same time allowing you to fly slow speed and knife-edge maneuvers with more precision and stability. Want to fly an ultra micro outside on a breezy day? The AS3X System will counter the effects of wind and turbulence so you feel like your flying a much larger model. Maybe you're a scratch builder who finds that scaling and CG limitations make it tough to create agile or realistic looking models that aren't a handful to fly. The AS3X System can help here too.

Basically, whatever kind of flying you do, a Spektrum receiver with the AS3X System will only encourage you to fly more and with more confidence.



The new generation of Spektrum AS3X receivers makes it possible to add a whole new dimension of precision and stability to just about everything you fly. They are compatible with all Spektrum DSM2®/DSMX® or JR®/DSM® transmitters and can be programmed at home or at the flying field using a PC or popular mobile device. Future versions of Spektrum AirWare™ software will make it possible to program them directly through your transmitter as well.

## ALL INCLUDE:

- › Programming cables for PCs and popular mobile devices\*
- › Three AS3X System modes: Off, Conventional Rate and Heading Hold
- › Built-in flaperon/dual aileron, delta/elevon, V-tail and dual elevator mixes
- › Built-in servo setup – sub-trim, travel adjust, reversing and more
- › Adjustable gain settings for each channel
- › Built-in telemetry capabilities

\* PC programming software will be available as a free download from [spektrumrc.com](http://spektrumrc.com). Mobile device users will be able to download a free app from their app store.

## SPMAR6335

The 6-channel AR6335 Nanolite AS3X receiver is ideal for 180- to 300-size airplanes.

## SPMAR636

Sport plane and park flyer pilots will like the affordable AR636 6-channel sport AS3X receiver.

## SPMAR7350 and SPMAR9350

The 7-channel AR7350 and 9-channel AR9350 receivers have been specially designed for complex aircraft with many servos.



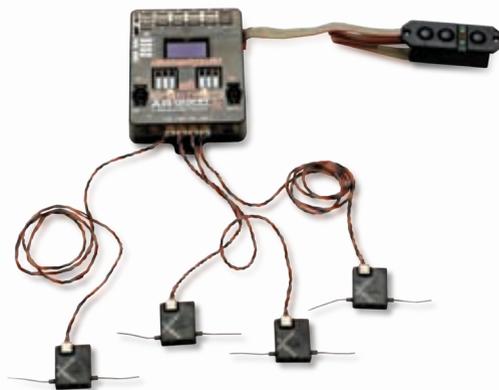
# HIGH-END RECEIVERS WITH POWERSAFE™ TECHNOLOGY

## SPMAR12120

### 12-Channel DSMX® X-Plus™ PowerSafe™ Receiver

The PowerSafe battery system of the AR12120 receiver incorporates redundant, dual-battery leads for use with battery systems up to 10 volts. Besides the ability to supply all the power your aircraft demands, the AR12120 receiver also includes four small, remote receivers and X-Plus channel expansion capability.

- › Spektrum™ 2.4GHz DSMX 12-channel receiver
- › 2048 resolution
- › X-Plus compatible
- › Suitable for LiPo, NiMH, NiCd, LiFe batteries
- › ServoSync technology
- › Two 16AWG battery leads with E-flite EC3™ connectors
- › Can handle up to 35A continuous and 50A peak current
- › Fail-on soft switch
- › Includes 4 remote receivers



## SPMAR12200

### 12-Channel DSMX PowerSafe Cockpit Receiver

The Spektrum AR12200 receiver is designed for modelers with extreme channel and voltage demands. It's capable of channeling enough power for up to 28 servos yet is incredibly compact. It includes four remote receivers as well as a sophisticated Spektrum SensorSwitch that's engineered to fail in the on position for an extra layer of safety.

- › Spektrum 2.4GHz DSMX 12-channel receiver
- › 2048 resolution
- › Dual, isolated voltage regulators built in
- › 5 match channels for up to 20 servos
- › Integrated flight log
- › 5.9V or 7.4V selectable servo voltage
- › LCD battery monitor display
- › Extra large heatsink for optimal performance
- › Eliminates servo return current
- › 11 channels + 1 door sequencer channel
- › 4 match channels for 2 servos each
- › Two 10A battery inputs
- › Can handle up to 20A of continuous power

## SPMAR9210

### 9-Channel DSMX PowerSafe Evolution Receiver

The AR9210 PowerSafe Evolution receiver employs the use of an integrated double linear voltage regulator that keeps current constant so you enjoy consistent servo performance. It comes with three remote receivers for redundancy and superior signal reliability.

- › 3-way redundancy with three remote receivers
- › Dual regulated voltage output
- › 2 electronic switches, activated with a SensorSwitch
- › Impulse amplifier for 9 channels and 12 servos
- › 5.9V or 7.4V selectable servo voltage



- › 3-LED battery monitor with 4 steps
- › Suitable for LiPo, NiMH, NiCd, LiFe batteries
- › Two external warning LEDs
- › Eliminates servo return current
- › Can handle up to 20A of continuous power and up to a 40A burst

## SPMAR9110

### 9-Channel DSMX PowerSafe Receiver

The Spektrum AR9110 9-channel receiver combines proven DSMX receiver technology with an intelligent power bus system. This redundant system is capable of accommodating two receiver batteries of up to 10V each, making it the ideal receiver for high-end models with power-hungry servo setups.

- › 9-channel DSMX receiver
- › 2048 resolution

- › Patented MultiLink technology
- › Two 16AWG battery wires with EC3 connectors
- › Failsafe switch
- › Data port for Flight Log and telemetry modules
- › 3 remote receivers included
- › Can handle up to 20A continuous power



	SPMAR12120	SPMAR12200	SPMAR9210	SPMAR9110
Channels	12	12	9	9
Modulation	DSM2/DSMX	DSM2/DSMX	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz	2.4GHz	2.4GHz
Dimension L x W x H in mm	52x46.5x15.3	110.5x73.1x19.9	99x61.7x19.9	47.3x40.2x14.2
Weight	72 g	113.4 g	85 g	34 g
Voltage	6.0-10.0V	4.0-9.0V	4.0-9.0V	6.0-10.0V
Antenna Length in mm	31	30	30	30
Remote Receivers	4	4	3	3
Flight Log/Telemetry	Yes	Yes	Yes	Yes
Resolution	2048	2048	2048	2048

# HIGH-END RECEIVERS

## SPMAR12020

### 12-Channel Full-Range DSMX Receiver with X-Plus

The AR12020 receiver packs a lot of capability into its compact case. Along with the proven advantages of MultiLink technology, it comes with inputs for two separate receiver battery packs so you can optimize the power supply and leave nothing to chance. It's also equipped with X-Plus technology that lets you expand the number of available channels with an X-Plus8 module (sold separately).

- › Compatible with X-Plus channel expansion modules
- › Includes 1 internal + 3 remote receivers for maximum signal security
- › Expands to up to 18 channels and servos
- › Patented MultiLink technology
- › Two separate battery inputs for maximum safety
- › Failsafe programming for every channel
- › Incredibly compact



SPMAR12020	
Channels	12
Modulation	DSM2/DSMX
Band	2.4GHz
Dimension L x W x H in mm	53 x 47 x 15
Weight	40 g
Voltage	4.8-10.0V
Antenna Length in mm	31
Remote Receivers	3
Flight Log/Telemetry	Yes
Resolution	2048

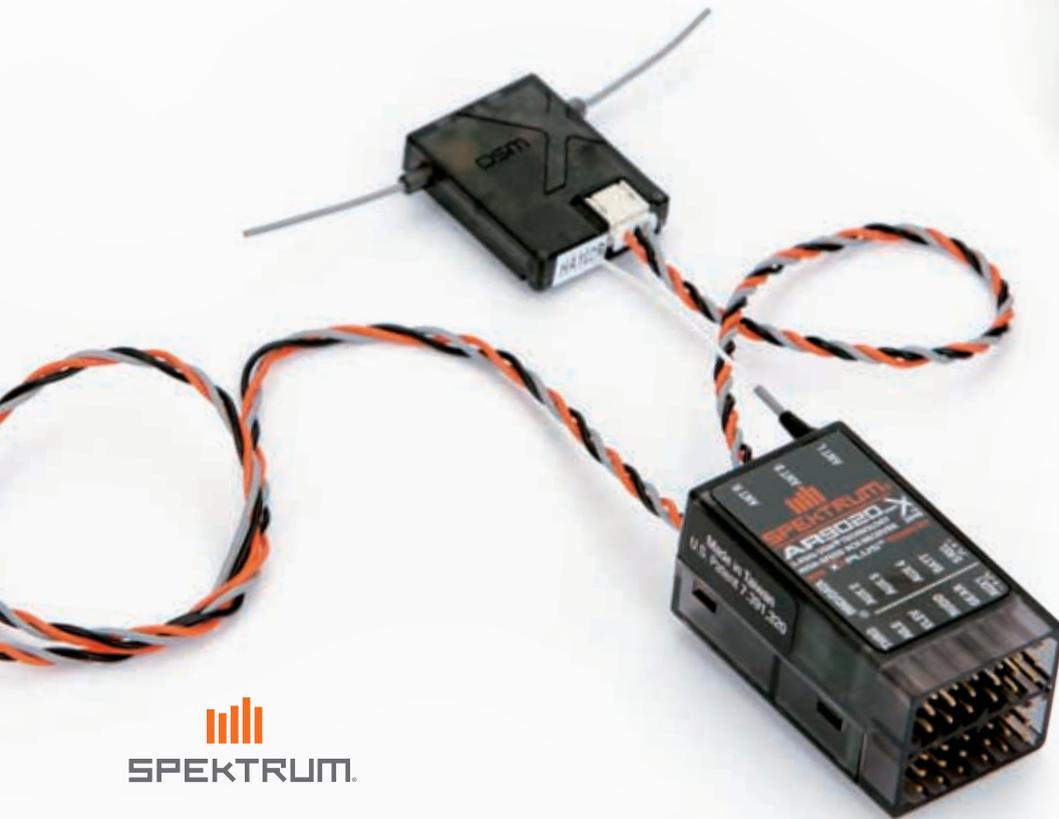
# HIGH-END RECEIVERS

## SPMAR9020

### 9-Channel Full-Range DSMX® X-Plus™ Receiver

The AR9020 receiver utilizes space-saving double-pin construction that allows it to squeeze into spots many 9-channel receivers can't. It comes with the flexibility of X-Plus technology that lets you add as many as 8 extra channels and servos. It comes with one internal and two remote receivers. An extra port for a third remote receiver is available if you need it. Like most other high-end Spektrum™ receivers, the AR9020 receiver allows you to program failsafe positions for each channel during the bind process.

- › Includes 1 internal + 2 remote receivers
- › Can accommodate up to 3 remote receivers
- › Compatible with X-Plus channel expansion modules
- › Patented MultiLink™ technology
- › QuickConnect™ technology
- › Failsafe programming for every channel



  
SPEKTRUM.

## SPMAR7610

### 7 Channel Full-Range, High-Speed DSMX Receiver

With a frame rate of 11 milliseconds and a resolution of 2048, the AR7610 model is the perfect helicopter and 3D receiver for DX7s, DX8, DX10t or DX18 transmitters. The receiver works with or without a remote receiver and features an integrated LED that indicates how many holds were encountered during a flight, very handy for determining if the receiver is mounted in the best location.

- › Includes 1 internal + 1 remote receiver
- › Patented MultiLink technology
- › SmartSafe™ failsafe system
- › QuickConnect technology with brownout detection
- › Lightning-quick 11ms response
- › 2048 resolution
- › Integrated LED hold indicator



	SPMAR9020	SPMAR7610
Channels	9	7
Modulation	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz
Dimension L x W x H in mm	41 x 23 x 20	34.3 x 29.2 x 11.4
Weight	11.9 g	8.9 g
Voltage	3.5-9.6V	3.5-9.6V
Antenna Length in mm	31	31
Remote Receivers	3	1
Flight Log/Telemetry	Yes	Yes
Resolution	2048	2048

# SPECIAL RECEIVERS

## SPMAR9310

### 9-Channel Full-Range DSMX Glider Receiver

The Spektrum AR9310 receiver is a compact, lightweight receiver that easily fits in the slimmest of glider fuselages. The long antennas can be passed through tiny holes in a carbon fiber fuselage so the receiver has an unrestricted "view" of the transmitter signal.

- › Slim, compact construction that's perfect for gliders
- › Long antennas you can pass through carbon fiber fuselages for external reception
- › Patented MultiLink Technology
- › QuickConnect technology
- › Failsafe programming for every channel
- › Data port for Flight Log and telemetry modules



## SPMAR6260

### 6-Channel Full-Range DSMX Carbon Fuselage Receiver

The Spektrum™ AR6260 full-range receiver is specifically designed for carbon fiber fuselage installations. Carbon fiber can create an RF shielding effect that significantly reduces signal range when using conventional receivers and antennas. The AR6260 features a special antenna design that overcomes these RF limitations by letting you route the antennas through the side of the fuselage to the outside.

- › Narrow case design for sailplanes, hot liners and similar models
- › Two 4-inch (186mm) coaxial antennas
- › Two internal receivers for dual path diversity
- › Preset failsafe on all channels
- › QuickConnect™ technology
- › 2048 resolution
- › Data port for Flight Log and telemetry modules



	SPMAR9310	SPMAR6260
Channels	9	6
Modulation	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz
Dimension L x W x H in mm	40.8 x 20.8 x 19.9	47 x 23.5 x 12.8
Weight	18.2 g	11.0 g
Voltage	3.5-9.6V	3.5-9.6V
Antenna Length in mm	203.2	186
Remote Receivers	1	NA
Flight Log/Telemetry	Yes	Yes
Resolution	2048	2048

# SPECIAL RECEIVERS

## SPMAR7200BX

7-Channel DSMX® Receiver with Integrated BeastX® Flybarless System



The AR7200BX receiver is masterpiece of RC technology that combines a 7-channel DSMX receiver with a BeastX®, 3-axis MEMS stabilization system into a single, compact unit that weighs just 18 g. In addition to saving weight, it eliminates the extra wires associated with having separate receiver and flybarless units. Because it's so compact it can be used with everything from 250-size electric helis all the way up to .90-size, nitro-powered 3D machines. You can also add governor programming with a free firmware update\*

\*Requires USB interface (SPMA3030) and an RPM sensor (SPM9560), sold separately.

- › Integrated BeastX 3-axis MEMS flybarless stabilization system
- › Ideal for 250- to 800-size helicopters
- › Can easily be programmed at the field—no special software required
- › DSMX safety and control
- › Lightning-quick 11ms response
- › 2048 resolution



SPMA3030\_\_

USB-Interface: 7200BX



  
**SPEKTRUM.**

## SPMAR635

6-Channel AS3X Sport Receiver

The AS3X (Artificial Stabilization - 3-axis) System built into the AR635 receiver counters the effects of wind and turbulence using 3-axis sensing and exclusive flight control software tuned by professional RC pilots. Whatever the flying conditions, you'll feel like you're flying an expertly-tuned model that does exactly what you want. For more details, see the AS3X technology article on page 24.

- › Combines a 6-channel DSMX receiver with the AS3X System
- › Designed for use with park flyers and sport planes
- › Compatible with all Spektrum DSM2/DSMX and JR DSM transmitters
- › Three AS3X settings for different types of flying
- › Adjustable dual gain settings for aileron, elevator and rudder



	SPMAR635	SPMAR7200BX
Channels	6	7
Modulation	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz
Dimension L x W x H in mm	56 x 21 x 14	36 x 28 x 13
Weight	13.2 g	18.6 g
Voltage	3.5-8.5V	3.5-8.5V
Antenna Length in mm	230	110.4
Remote Receivers	-	1
Flight Log/Telemetry	Yes	Yes
Resolution	2048	2048

# STANDARD RECEIVERS

## SPMAR400

### 4-Channel Full-Range DSMX Aircraft Receiver

The full-range Spektrum AR400 receiver is easily one of the best receiver values in RC. It gives pilots the speed and precision of genuine DSMX control plus the signal security of an active amplified antenna.

- › Full-range DSMX control
- › Active amplified antenna for greater signal clarity
- › Perfect for sport planes and park flyers



## SPMAR610

### 6-Channel Full-Range DSMX Sport Receiver

Like the AR400, the AR610 combines the speed and precision of DSMX control with the signal security of an active amplified antenna that enables it so "see around" reflective materials and avoid polarization blind spots.

- › Full-range DSMX control
- › Active amplified antenna for greater signal clarity
- › 6-channels for a wider variety of applications
- › Data port for Flight Log and telemetry modules

## SPMAR610C

### 6-Channel Full-Range DSMX Coated Sport Receiver

The AR610C gives you all the advantages of the standard AR610 receiver plus a special conformal coating that makes it a smart choice for amphibious and seaplane models.

- › Full-range DSMX control
- › Active amplified antenna for greater signal clarity
- › 6-channels for a wider variety of applications
- › Data port for Flight Log and telemetry modules
- › Water-resistant protective coating

	SPMAR400	SPMAR610	SPMAR610C
Channels	4	6	6
Modulation	DSM2/DSMX	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz	2.4GHz
Dimension L x W x H in mm	31 x 17 x 11	36.6 x 26.7 x 12.7	36.6 x 26.7 x 12.7
Weight in g	5.6	9	9
Voltage	3.5-9.6V	3.5-9.6V	3.5-9.6V
Antenna Length in mm	190	190	190
Remote Receivers	-	NA	NA
Flight Log/Telemetry	Yes	Yes	Yes
Resolution	2048	2048	2048

# AIR RECEIVERS

## SPMAR6210

### 6-Channel Full-Range DSMX® Receiver

The full-range AR6210 receiver is a great 6-channel solution for any model that might benefit from Spektrum™ MultiLink™ technology. Using the internal receiver and a smaller remote receiver mounted in a different location with a different polarity, the AR6210 receiver gathers information from the two receivers and processes it using patented Spektrum software to form the most vivid picture of an RF signal possible. This dual path redundancy, plus the fact each of the two receivers is located in a slightly different location, exposes each to a different RF environment and creates a bulletproof RF link in all conditions.

- › 1 internal + 1 remote
- › Patented MultiLink technology
- › ModelMatch™ technology protects against flying with wrong model memory
- › ServoSync™ servo synchronization for CCPM and dual servo mixes
- › SmartSafe™ failsafe system



	SPMAR6210
Channels	6
Modulation	DSMX / DSM2
Band	2.4GHz
Dimension L x W x H in mm	30.1 x 21.6 x 12.3
Weight	10 g
Voltage	3.5-9.6V
Antenna Length in mm	30
Remote Receivers	1
Flight Log/Telemetry	Yes
Resolution	2048



### SPM9645

DSMX Remote Receiver

### SPM9545

DSM2 Remote Receiver

Spektrum remote receivers are designed for use with DSM2 and DSMX receivers that feature MultiLink technology and remote receiver ports. Each remote receiver comes with a 24-inch extension. Extra extensions are available in a variety of lengths, including 6" (152mm), 9" (229mm), 12" (305mm), 24" (610mm) and 36" (914mm).



### SPM9646

DSMX Carbon Fuse Remote Receiver

### SPM9546

DSM2 Carbon Fuse Remote Receiver

These carbon fuse remote receivers are for use with carbon fiber fuselage installations. Extra receiver extensions are available in a variety of lengths to accommodate most any application. Available lengths include 6" (152mm), 9" (229mm), 12" (305mm), 24" (610mm) and 36" (914mm).

	SPM9545	SPM9645	SPM9546	SPM9646
Channels	-	-	-	-
Modulation	DSM2	DSMX	DSM2	DSMX
Band	2.4GHz	2.4GHz	2.4GHz	2.4GHz
Dimension L x W x H in mm	25 x 23 x 7	25 x 23 x 9	30 x 20.2 x 7.4	30 x 20.2 x 7.4
Weight	3 g	3.35 g	3.2 g	3.2 g
Voltage	3.5 - 9.6 V	3.5 - 9.6 V	3.5 - 9.6 V	3.5 - 9.6 V
Antenna Length in mm	31	31	231	200
Remote Receivers	-	-	-	-
Flight Log/Telemetry	-	-	-	-
Resolution	2048	2048	2048	2048

# MICRO AIR RECEIVERS



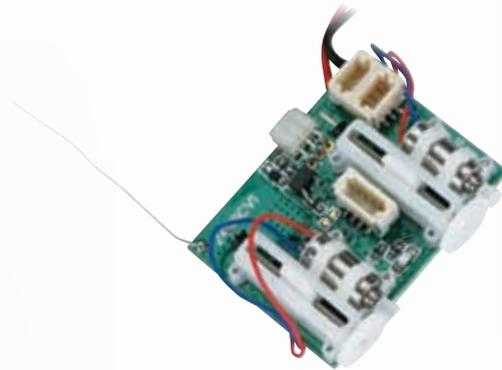
## SPMAR6310

### 6-Channel DSMX® Nanolite Receiver

When it comes to lightweight 3D foamies, micro helis and indoor slow flyers, every ounce you can eliminate means better performance and longer flight times.

Weighing in at a scant 2 grams, the Spektrum™ AR6310 receiver is perfect for these types of applications.

- › Weighs only 2 grams
- › JST connectors
- › Compatible with most Spektrum ultra micro servos

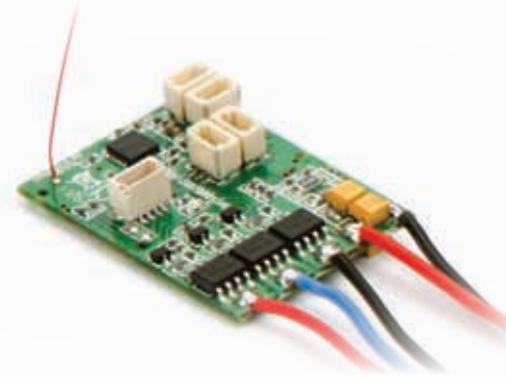


## SPMAR6410

### 6-Channel DSMX Ultra Micro Receiver with Integrated Servos and ESC

The AR6410 receiver is designed exclusively for ultra micro and ultra light foamy aircraft. It combines a 6-channel DSMX receiver, two linear servos, an ESC and ParkZone® X-Port technology onto a single circuit board.

- › Integrated brushed speed control
- › Integrated X-Port™ technology
- › Two integrated linear servos (elevator and rudder)
- › Includes 2 additional ports for external servos



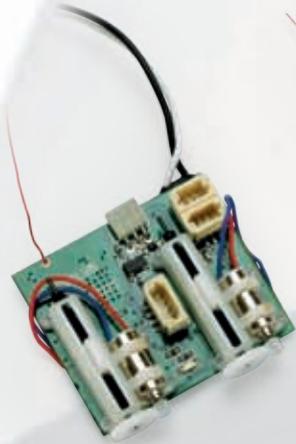
## SPMAS6410NBL

### 6-Channel DSMX Ultra Micro AS3X® Receiver with BL ESC

With the AS6410NBL receiver, your ultra micro will eagerly execute flight commands and precisely maintain whatever attitude you leave it in thanks to its built-in AS3X System. Even in wind, you'll feel like you're flying a finely-tuned, Giant-Scale airplane. AS3X settings can be adjusted for different types of ultra micro airplanes using the USB interface (SPMA6030) sold separately.

- › Built-in AS3X System
- › Built-in 5A brushless ESC
- › Four connectors for Spektrum ultra micro servos
- › AS3X programmer (SPMA6030) available separately

	SPMAR6310	SPMAR6410	SPMAS6410NBL
Channels	6	6 or 4 Plus	6
Modulation	DSM2/DSMX	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz	2.4GHz
Dimension L x W x H in mm	28.6 x 18.4 x 7.1	23.5 x 27.8 x 8.1	35 x 25 x 8
Weight	2 g	3.9 g	6.4 g
Voltage	3.5-9.6V	3.2-4.2V (1S LiPo)	6.4-8.4V (2S LiPo)
Antenna Length in mm	31	31	31

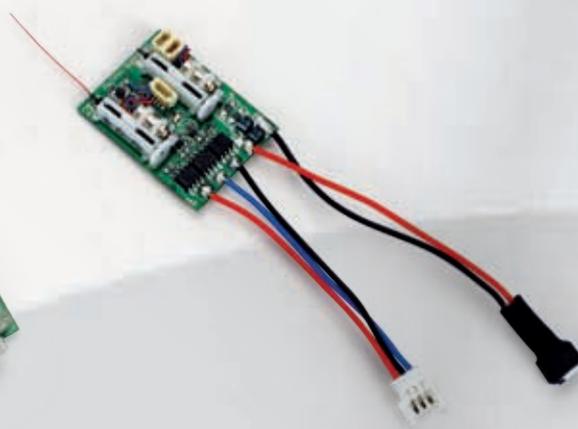


### SPMAR6410L

6-Channel DSMX Ultra Micro Receiver with Integrated Long-Throw Servos and ESC

The AR6410L receiver is ideal for ultra micro and ultra light foamy 3D aircraft that require extra control surface travel of a long throw servo. It combines a 6-channel DSMX receiver, two linear long throw servos, an ESC and ParkZone X-Port technology onto a single circuit board.

- › Integrated brushed speed control
- › Integrated X-Port Technology
- › 2 integrated long-throw linear servos (elevator and rudder)
- › Includes 2 additional ports for external servos

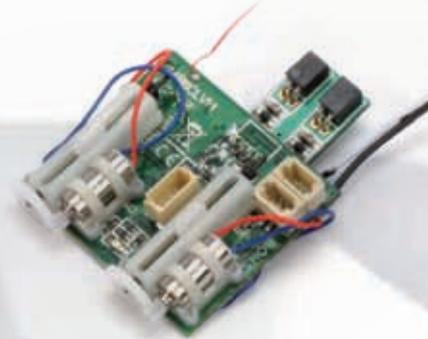


### SPMAR6410LBL

6-Channel DSMX Ultra Micro Receiver with Integrated Long-Throw Servos and Brushless ESC

The AR6410LBL receiver combines a 6-channel DSMX receiver, two linear long throw servos, a brushless ESC and ParkZone X-Port technology onto a single circuit board.

- › Integrated brushless speed control
- › Integrated X-Port technology
- › 2 integrated long-throw linear servos (elevator and rudder)
- › Includes 2 additional ports for external servos



### SPMAR6410T

6-Channel DSMX Ultra Micro Receiver with Integrated Long-Throw Servos and Twin ESCs

The AR6410T receiver comes equipped with two, integrated, brushed ESCs for use with twin-motor ultra micro aircraft. It combines the two ESCs with the 6-channel DSM2/DSMX receiver, two long-throw linear servos and ParkZone X-Port technology onto a single circuit board.

- › 2 integrated brushed speed controls
- › Integrated X-Port Technology
- › 2 integrated long-throw linear servos (elevator and rudder)
- › Includes 2 additional ports for external servos

	SPMAR6410L	SPMAR6410LBL	SPMAR6410T
Channels	6 or 4 Plus	6 or 4 Plus	6 or 4 Plus
Modulation	DSM2/DSMX	DSM2/DSMX	DSM2/DSMX
Band	2.4GHz	2.4GHz	2.4GHz
Dimension L x W x H in mm	23.5 x 27.8 x 8.2	37.6 x 28.6 x 8	38 x 27.8 x 8.1
Weight	3.9 g	7.8 g	7.8 g
Voltage	3.2-4.2V (1S LiPo)	3.5-8.4V (2S LiPo)	3.2-4.2V (1S LiPo)
Antenna Length in mm	31	31	31

# TELEMETRY

Spektrum telemetry technology makes it possible to get real-time information on your model's battery voltage, motor rpm, motor temperature and more. More importantly, Spektrum telemetry technology adds an extra layer of safety by letting you set alerts for whenever critical telemetry values, like battery voltage or signal quality, exceed limits you define.

Two onboard Spektrum telemetry modules are available, the full-range TM1000 and the smaller, shorter range TM1100 fly-by module. Both are compatible with any DSM2 or DSMX receiver that is equipped with a data port. Each has the built-in capability to transmit data on signal quality, fades, holds and failsafe. Sensors for tracking external data like motor temps, battery voltage, airspeed, altitude and more are available separately.



Spektrum telemetry helps you fine-tune your model and increases safety.

*"Approaching stall speed!"*

*"Altitude, 400 feet!"*

*"Heading, 150 degrees!"*

*"Engine temperature high!"*

## HEAR WHAT'S HAPPENING

Spektrum transmitters with voice alerts give you the ability to keep track of all your telemetry functions without ever taking your eyes off what you're flying.



SPMA9549\_\_\_ Fly-By Aircraft Telemetry Module



SPMA9548\_\_\_ Full-Range Aircraft Telemetry Module



SPMA9570\_\_\_ Flight Pack Voltage Sensor



SPMA9558\_\_\_ RPM Sensor for BL Motors



SPMA9587\_\_\_ GPS Sensor



SPMA9574\_\_\_ Airspeed Indicator



SPMA9575\_\_\_ Altimeter



SPMA9586\_\_\_ 3-Axis GForce Sensor 40G

SPM9548	Full-Range Aircraft Telemetry Module
SPM9549	Fly-By Aircraft Telemetry Module
SPMA9551	12" Aircraft Telemetry Extension
SPMA9552	24" Aircraft Telemetry Extension
SPMA9553	2.5" Aircraft Telemetry Y-Harness
SPMA9554	Aircraft Telemetry Flight Pack Voltage Sensor: Servo
SPMA9555	Aircraft Telemetry Flight Pack Voltage Sensor: JST
SPMA9556	Aircraft Telemetry Flight Pack Voltage Sensor: EC3
SPMA9557	Aircraft Telemetry Flight Pack Voltage Sensor: D. Ultra
SPMA9558	Aircraft Telemetry Brushless RPM Sensor
SPMA9569	Aircraft Telemetry RPM Sensor
SPMA9570	Aircraft Telemetry Flight Pack Voltage Sensor
SPMA9571	Aircraft Telemetry Temperature Sensor
SPMA9574	Aircraft Telemetry Airspeed Indicator
SPMA9575	Aircraft Telemetry Altimeter
SPMA9584	Aircraft Telemetry JetCat Sensor
SPMA9585	Aircraft Telemetry 3-Axis GForce Sensor: 8G
SPMA9586	G Aircraft Telemetry 3-Axis GForce Sensor: 40G
SPMA9587	Aircraft Telemetry GPS Sensor
SPMA9589	Aircraft Telemetry Variometer Sensor
SPMA9590	Aircraft Telemetry High-Current Sensor
SPMA9890	Aircraft Telemetry Flight Pack Current Sensor: 150A
SPMA9891	Aircraft Telemetry Flight Pack Capacity Sensor

# AIR SERVOS



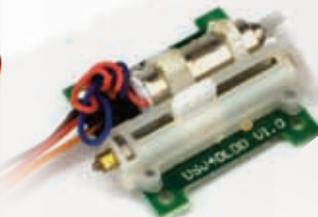
**SPMAS2000LBB**  
1.9-Gram Linear Long-Throw BB Servo

This ball bearing ultra micro servo is remarkably durable and delivers an impressive amount of control force.



**SPMSA2010**  
Ultra Micro Servo

This inexpensive servo is perfect for micro and mini aircraft that require a torque servo with a case.



**SPMSA2030LO**  
2.3-Gram Linear Long-Throw Offset Servo

This special use servo comes programmed with a 70/30 offset from center and is designed for modelers without computer transmitters who would like to add aileron differential to their ultra micro aircraft.



**SPMSA2030L**  
2.3-Gram Performance Linear Long-Throw Servo

The speedy .10 transit time and impressive torque of the SA2030L servo make it ideal for ultra micro 3D aircraft.



**SPMSA3030**  
Sub-Micro Digital High-Torque Aircraft Servo

With the amazing little A3030 servo, you get speed and strength. You'll also enjoy the reliability and precision of its low deadband supported output shaft.



**SPMSA3040**  
Sub-Micro Digital High-Torque Aircraft MG Servo

The SA3040 servo is the perfect combination of weight, speed and holding power for a park flyer. It's also very rugged and precise.

**SPMSA2020**  
Nanolite Servo

At just 4.1 grams, this is a great torque servo solution for foamy 3D aircraft.



**SPMSA2005**  
1.8-Gram Linear Servo

The versatile SA2005 servo is compact even by ultra micro standards, making it a fine choice for many ultra micro applications.

	SPMAS2000LBB	SPMSA2005	SPMSA2010	SPMSA2020	SPMSA2030L	SPMSA2030LO	SPMSA3030	SPMSA3040
Size/Applicaton	Ultra Micro Aircraft	Ultra Micro Aircraft	Ultra Micro Aircraft	Ultra Micro Aircraft	Ultra Micro Aircraft	Ultra Micro Aircraft	Minis/Park Flyer	Minis/Park Flyer
Torque or Force	2.8 oz (79 g) @ 3.7V	2.8 oz (79 g) @ 3.7V	1.36 oz-in (.10 kg-cm) @ 3.3V 2.0 oz-in (.15 kg-cm) @ 4.8V	11.1 oz-in (.80 kg-cm) @ 4.8V 12.5 oz-in (.90 kg-cm) @ 6.0V	3.5 oz (100g) @ 3.7V	3.5 oz (100g) @ 3.7V	23.6 oz-in (1.7 kg-cm) @ 4.8V 27.8 oz-in (2.0 kg-cm) @ 6.0V	23.1 oz-in (1.66 kg-cm) @ 4.8V 27.8 oz-in (2.0 kg-cm) @ 6.0V
Speed	0.14 sec	0.14 sec	0.09 sec/60° @ 3.3V 0.06 sec/60° @ 4.8V	0.09 sec/60° @ 4.8V 0.07 sec/60° @ 6.0V	0.10 sec	0.10 sec	0.12 sec/60° @ 4.8V 0.10 sec/60° @ 6.0V	0.12 sec/60° @ 4.8V 0.10 sec/60° @ 6.0V
Dimension L x W x H in mm	16.9 x 22 x 8.3	16 x 15 x 8.2	18.1 x 8 x 16.9	19.7 x 8.3 x 22.8	22 x 16.9 x 8.2	23 x 16.9 x 8.2	24 x 11 x 25	24 x 11 x 25
Weight	1.9 g	1.8 g	2.5 g	4.1 g	2.3 g	2.3 g	8.6 g	12.6 g
Gear	Nylon	Nylon	Nylon	Nylon	Nylon	Nylon	Nylon	Metal



### SPMSA4010

#### Micro Digital Aircraft Servo

The A4010 servo takes everything that makes the A4000 servo great and adds the holding power and precision of a digital processor.



### SPMSA5030

#### Mini Digital Aircraft Servo

The lightweight plastic gear train, digital precision and incredible .10 second transit time of the A5030 are just what for .25- to .32-size aerobatic and 3D modelers are looking for. Dual ball-bearing support adds to the precision.



### SPMSA5040

#### Mini Digital Aircraft Metal Gear Servo

The output shaft of the A5040 servo is supported by two ball bearings that prolong life and improve precision. To this it adds an extremely tough metal gear that can handle anything.



### SPMSA5060

#### High-Voltage High Torque Mini Digital Metal Gear Aircraft Servo

The A5060 packs big servo performance (118 oz-in of torque and 0.11 second transit @ 8.4V) into a small package that's perfectly sized for .25- to .32-size aircraft.

	SPMSA4010	SPMSA5030	SPMSA5040	SPMSA5060
Size/Applicaton	.15- to .25-Size Airplanes	.25- to .32-Size Airplanes	.25- to .32-Size Airplanes	.25- to .32-Size Airplanes
Torque or Force	34.7 oz-in (2.5 kg-cm) @ 4.8V 41.7 oz-in (3.0 kg-cm) @ 6.0V	50 oz-in (3.6 kg-cm) @ 4.8V 67 oz-in (4.8 kg-cm) @ 6.0V	51 oz-in (3.6 kg-cm) @ 4.8V 67 oz-in (4.8 kg-cm) @ 6.0V	87 oz-in (6.3 kg-cm) @ 6.0V 118 oz-in (8.5 kg-cm) @ 8.4V
Speed	0.14 sec/60° @ 4.8V 0.11 sec/60° @ 6.0V	0.12 sec/60° @ 4.8V 0.10 sec/60° @ 6.0V	0.12 sec/60° @ 4.8V 0.10 sec/60° @ 6.0V	0.15 sec/60° @ 6.0V 0.11 sec/60° @ 8.4V
Dimension L x W x H in mm	28 x 13 x 25	33 x 15 x 28	33 x 15 x 28	32.8 x 14.7 x 27.4
Weight	17.2 g	21.6 g	21.6 g	26.0 g
Gear	Nylon	Nylon	Metal	Metal

# AIR SERVOS



**SPMSA7040**  
High-Voltage Retract Servo



**SPMSA6110**

HV Standard Servo

The A6110 servo is an affordable, high-voltage digital servo that can be used with 2S LiPo receiver packs without a regulator. The incredible precision of its nylon gear train will transform any .40- to .60-size sport flying experience.



**SPMSA6150**

High-Voltage High Torque Metal Gear Servo

The impressive 180 oz-in of torque the A6150 produces makes it a great choice for a wide variety of models from .40-size sport planes to big 35% 3D aircraft.



**SPMSA6180**

Standard Digital Metal Gear Aircraft Servo

The A6180 gives you dual ball bearing precision, waterproof design and an impressive 94 oz-in of torque at a great price. It's the perfect for sport servo for the price conscious pilot.



**SPMSA6220**

HV Digital Hi-Torque Low-Profile Metal Gear Aircraft Servo

With the A6220, you never have to sacrifice performance to fit tight spaces. Its 140 oz-in of torque (at 8.4V) and short case design is perfect for applications that demand a premium performance servo, but leave little headroom for mounting one.

	<b>SPMSA6110</b>	<b>SPMSA6150</b>	<b>SPMSA6180</b>	<b>SPMSA6220</b>
Size/Applicaton	.40- to .60-Size Airplanes	.40-Size to 35% Scale Aircraft	.40-Size to 1/4 Scale Aircraft	.40-Size, 1/4 Scale, 2M Pattern and Jet Aircraft
Torque or Force	56.9 oz-in (4.1 kg-cm) @ 6.0V 76.3 oz-in (5.5 kg-cm) @ 7.4V	140 oz-in (10.1 kg-cm) @ 6.0V 180 oz-in (13.0 kg-cm) @8.4V	82 oz-in (5.9 kg-cm) @ 4.8V 94 oz-in (6.8 kg-cm) @ 6.0V	94 oz-in (6.8 kg-cm) @ 6.0V 140 oz-in (10.1 kg-cm) @ 8.4V
Speed	0.20 sec/60° @ 6.0V 0.14 sec/60° @ 7.4V	0.17 sec/60° @ 6.0V 0.12 sec/60° @ 8.4V	0.17 sec/60° @ 4.8V 0.14 sec/60° @ 6.0V	0.15 sec/60° @ 6.0V 0.11 sec/60° @ 8.4V
Dimension L x W x H in mm	38.0 x 18.0 x 37.0	40.0 x 20.0 x 38.3	38.8 x 18.8 x 34.9	40.3 x 20.0 x 26.0
Weight	36.5 g	53.9 g	42 g	46 g
Gear	Nylon	Metal	Metal	Metal



### SPMSA6260

HV Digital Hi-Torque Aircraft Servo

Capable of 340 oz-in of torque at 8.4V, the A6260 makes light work of just about any giant scale task. And it will stay cool doing it, thanks to its aluminum case that helps dissipate heat under heavy loads.



### SPMSA6270

High-Voltage Ultra Torque Metal Gear Servo

The astounding 582 oz-in of torque the A6270 produces is perfect for giant scale pilots who regularly push their aircraft to the limits. It includes servo leads that can be disconnected for easier removal and installation.



### SPMSA7020

Digital Wing Servo

The A7020 model is a digital servo with a metal gear train that has been specially designed to easily fit in thin wings like those typically used on high-performance gliders. And while it may only measure 10mm thick, it can still produce an incredible 50 oz-in of torque.



### SPMSA7030

HV Thin Wing Servo

The A7030 servo combines a slim case with an abundance of torque that make it ideal for thing-wing applications. What sets it apart is the ability to handle the higher voltage of 2S LiPo receiver packs. This makes setup simpler and lighter since no voltage regulators are required.



### SPMSA7040

HV Retract Servo

The wide stance and low-profile design of the A7040 servo is perfect for mechanical retract systems. Its equipped with heavy-duty metal gears and a cored motor that together help it produce 266 oz-in of torque, the best in its class. It can also be used with high-voltage, 2S LiPo receiver packs without the need for regulators, making setup simpler and operation more efficient. When used with a transmitter with a servo speed function, the travel speed of the A7040 servo can be slowed down for a more scale look.

	SPMSA6260	SPMSA6270	SPMSA7020	SPMSA7030	SPMSA7040
Size/Applicaton	Giant Scale Aircraft	Giant Scale Aircraft	Thin Wings (10mm)	Thin Wings (10mm)	Mechanical Retracts
Torque or Force	271 oz-in (19.5 kg-cm) @ 6.0V 382 oz-in (27.5 kg-cm) @ 8.4V	434 oz-in (31.2 kg-cm) @ 6.0V 582 oz-in (41.9 kg-cm) @ 8.4V	47.2 oz-in (3.4 kg-cm) @ 4.8V 50 oz-in (3.6 kg-cm) @ 6.0V	34.7 oz-in (2.5 kg-cm) @ 6.0V 48.6 oz-in (3.5 kg-cm) @ 7.4V	194 oz-in (14 kg-cm) @ 6.0V 266 oz-in (19.2 kg-cm) @ 7.4V
Speed	0.20 sec/60° @ 6.0V 0.14 sec/60° @ 8.4V	0.18 sec/60° @ 6.0V 0.12 sec/60° @ 8.4V	0.11 sec/60° @ 4.8V 0.09 sec/60° @ 6.0V	0.22 sec/60° @ 6.0V 0.15 sec/60° @ 7.4V	1.92 sec/160° @ 6.0V 1.39 sec/160° @ 7.4V
Dimension L x W x H in mm	40.9 x 20.9 x 31.8	40.9 x 20.9 x 34.3	27 x 10 x 27	27 x 10 x 27	44 x 22 x 27
Weight	65.2 g	76.5 g	14.5 g	14.5 g	42 g
Gear	Metal	Metal	Metal	Metal	Metal

# HELICOPTER SERVOS



**SPMSH3020**  
Sub-Micro Digital High-Speed  
Heli MG Servo

This 0.08-second transit time, 22 oz-in of torque and metal gear train of the H3020 servo are the perfect combination of weight, speed and holding power for 250- to 450-size helis.



**SPMSH5020G**  
Mini Digital Gyro MG Servo

The incredible speed and accuracy of the Spektrum H5020G gyro servo will transform the performance of any 250- to 500-size 3D helicopter. It boasts a metal gear train designed to withstand the punishment of aggressive 3D maneuvers. It also has a specially designed case with an aluminum center section that dissipates heat.



**SPMSH6010**  
Digital Heli Servo

The H6010 servo combines an impressive 100 oz-in of torque with a rugged brass-nylon gear train. This performance, along with the smooth precision of its dual ball-bearing output shaft, makes it the ultimate sport servo for everything from .30- to .50-size nitro helis to 600-size electric helis.



**SPMSH6040**  
Digital Heli Servo - High Speed

The H6040 is capable of 167 oz-in of torque and transit times as fast as eight hundredths of a second. This makes it the servo of choice for competition-class .50- to .90-size 3D helis. Contributing to its unbelievable holding power and precision is the extra rigidity of an aluminum case that also doubles as a heat sink.



**SPMSH6080G**  
Gyro Servo

The Spektrum H6080G servo gives you the lightning-quick tail performance you need for 550- to 700-size helicopters. A 6V response rate of .048 sec/60°, a metal gear train and digital precision - it has it all.



**SPMSH6160**  
HV High Speed Cyclic Metal Gear  
Servo

The durable H6160 delivers an impressive 132 oz-in of torque that, along with its quick 0.11 second transit time, make it a great cyclic servo for 550- to 700-size helicopters.

	<b>SPMSH3020</b>	<b>SPMSH5020G</b>	<b>SPMSH6010</b>	<b>SPMSH6040</b>	<b>SPMSH6080G</b>	<b>SPMSH6160</b>	<b>SPMSH6200</b>
Size/Applicaton	250- to 450-Size Helis	250- to 500-Size Heli Tail	.30- to .50-Size Helis	.50- to .90-Size Helis	500- to 700-Size Heli Tail	500- to 700-Size Helis	550- to 700-Size Heli Cyclic
Torque or Force	18 oz-in (1.3 kg-cm) @ 4.8V	33.3 oz-in (2.4 kg-cm) @ 4.8V	86 oz-in (6.2 kg-cm) @ 4.8V	133 oz-in (9.6 kg-cm) @ 4.8V	55.5 oz-in (4 kg-cm) @ 4.8V	107 oz-in (7.7 kg-cm) @ 6.0V	139 oz-in (10.0 kg-cm) @ 6.0V
	22.2 oz-in (1.6 kg-cm) @ 6.0V	38.9 oz-in (2.8 kg-cm) @ 6.0V	100 oz-in (7.2 kg-cm) @ 6.0V	167 oz-in (12 kg-cm) @ 6.0V	69 oz-in (5 kg-cm) @ 6.0V	132 oz-in (9.5 kg-cm) @ 8.4V	187 oz-in (13.5 kg-cm) @ 8.4V
Speed	0.09 sec/60° @ 4.8V	0.06 sec/60° @ 4.8V	0.16 sec/60° @ 4.8V	0.10 sec/60° @ 4.8V	0.06 sec/60° @ 4.8V	0.15 sec/60° @ 6.0V	0.08 sec/60° @ 6.0V
	0.08 sec/60° @ 6.0V	0.05 sec/60° @ 6.0V	0.14 sec/60° @ 6.0V	0.08 sec/60° @ 6.0V	0.05 sec/60° @ 6.0V	0.11 sec/60° @ 8.4V	0.06 sec/60° @ 8.4V
Dimension L x W x H in mm	24 x 12 x 25	34.7 x 14.7 x 30.5	40 x 20 x 37	40 x 20 x 37	40 x 20 x 37	40 x 20 x 38.3	40.9 x 29.0 x 31.8
Weight in g	12.6	24.5	49	52.4	56.4	53.9	62.4
Gear	Metal	Metal	Metal	Titanium	Metal	Metal	Metal



**SPMSH6200**  
High-Voltage High Speed  
Digital Cyclic Metal Gear Servo

The H6200 is specifically engineered to handle the cyclic demands of 550- to 700-size flybarless helis. When flying 'smack' 3D maneuvers, its lightning fast response provides some of the fastest transitions between blade pitch extremes of any servo in its class.



**SPMSH6210**  
High-Voltage Ultra Speed  
Digital Heli Tail Metal Gear Servo

The instantaneous .03 second response of the H6210 will keep the tail of any 550- to 700-size heli right where you want through the most aggressive 3D maneuvers.



**SPMSH6280**  
High-Voltage High Torque  
Digital Cyclic Metal Gear Servo

550- to 800-size heli pilots seeking the ultimate in cyclic control need look no further than the H6280. Its 280 oz-in of torque and .06 second transit time make abrupt cyclic inputs during extreme 3D maneuvers feel unbelievably crisp and precise. Includes removable servo leads for easy maintenance after installation.



**SPMSH2025L**  
2.0-Gram Linear Long-Throw  
Servo, 15mm Lead

The short, 15mm lead on this robust ultra micro servo reduces wire clutter when it's used in applications such as a cyclic servo that is mounted close to the receiver.



**SPMSH2026L**  
2.1-Gram Linear Long-Throw  
Servo, 38mm Lead

The servo lead on the SH2026L servo is long enough to reach an ultra micro heli's receiver from anywhere on the frame, but still short enough to reduce wire clutter.



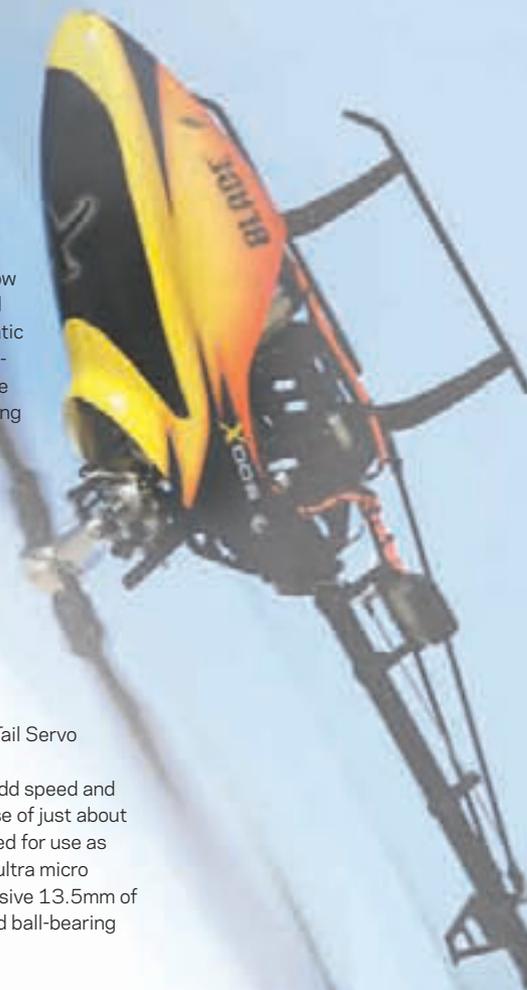
**SPMSH2040L**  
2.9-Gram Performance Linear  
Long-Throw Servo

The extra force and control throw this 2.9 gram servo delivers will bring out the best in any aerobatic ultra micro aircraft. Accompanying this extra performance is the smooth precision of a ball-bearing output shaft.



**SPMSH2040T**  
2.9-Gram Performance Linear Tail  
Servo

This incredible little servo will add speed and precision to the control response of just about any ultra micro aircraft. Designed for use as a tail servo on AS3X-equipped ultra micro helicopters, it boasts an impressive 13.5mm of throw, .065 sec transit time and ball-bearing precision.



SPMSH6210	SPMSH6280	SPMSH2025L	SPMSH2026L	SPMSH2040L	SPMSH2040T
550- to 700-Size Heli Tail	550- to 800-Size Heli Cyclic	Ultra Micro Aircraft	Ultra Micro Aircraft	Ultra Micro Aircraft	Ultra Micro Aircraft
79 oz-in (5.69 kg-cm) @ 6.0V 107 oz-in (7.7 kg-cm) @ 8.4V	214 oz-in (15.4 kg-cm) @ 6.0V 280 oz-in (20.1 kg-cm) @ 8.4V	3.5 oz (100 g) @ 3.7V	3.5 oz (100 g) @ 3.7V	11.6 oz (329 g) @ 3.7V	9.6 oz (272 g) @ 3.7V
0.04 sec/60° @ 6.0V 0.03 sec/60° @ 8.4V	0.08 sec/60° @ 6.0V 0.06 sec/60° @ 8.4V	.10 sec	.10 sec	.13 sec	.065 sec
40.9 x 29.0 x 31.8	24 x 11 x 25	22 x 16.9 x 8.2	23 x 16.9 x 8.2	24 x 19 x 9	25 x 19 x 9
62.4	12.6	2	2.1	2.9	2.9
Metal	Metal	Nylon	Nylon	Nylon	Nylon

# GET CONNECTED.

Connected. It's the one word used more than any other when racers describe the kind of responsiveness they experience with Spektrum™ surface transmitters. The reason is DSM® (Digital Spectrum Modulation)—the spread spectrum technology that has been proven where it matters most—on the drivers' stand.

You see, Spektrum surface systems offer a faster response time and consistently deliver the narrowest latency range in RC. That narrow variance in the latency of the system ensures that your input will happen exactly when you expect it to. No matter what happens, you stay in control and hit your mark every time.



# ON ROAD, OFF ROAD OR ON THE WATER

## SPEKTRUM TECHNOLOGY LEADS THE WAY

SPEKTRUM TECHNOLOGY LAUNCHED THE 2.4GHZ RC REVOLUTION AND CONTINUES TO BE THE DRIVING FORCE BEHIND MANY OF THE BIGGEST ADVANCES IN RC TODAY.

### AVC™ (ACTIVE VEHICLE CONTROL™) TECHNOLOGY

Using a combination of sensors and software algorithms, AVC technology makes hundreds of steering and throttle adjustments per second so you can drive faster through turns, or on challenging surfaces, with more control. The level of stability provided by AVC technology can be adjusted to suit your preference and feels completely natural. There is no lag in response or limits on your control. With AVC, you'll feel like you're driving a finely tuned vehicle, one that handles with precision at any speed.

### DSMR™ TECHNOLOGY

Frequency-agile DSMR technology is exclusive Spektrum 2.4GHz control technology that can be used with any type of land-based RC vehicle or boat. Its combination of a wideband signal with unique frequency shift patterns for each transmitter gives it superb range and response, particularly in noisy 2.4GHz environments. It's also backwards compatible with DSM, DSM2® and marine-specific Spektrum receivers.

### MODELMATCH™ TECHNOLOGY

ModelMatch technology\* prevents damage from accidentally driving an RC vehicle with the wrong model settings selected. If the model you select from your transmitter's memory doesn't share the same code as the receiver that's in the vehicle you're trying to drive, the receiver won't respond until the correct model is selected.

*\*Only available on Spektrum and JR® transmitters with built-in DSM2/DSMX technology. Not available on transmitters equipped with DSM2 modules.*

### BIND-N-DRIVE™ RC VEHICLES

When you own a Spektrum surface transmitter, you hold the key to a great selection of ready-to-run vehicles from some of the best names in RC that you can simply bind to your transmitter and drive. No building is required and you won't have to pay for an extra transmitter you don't need.



# DX4R RACE-WINNING RESPONSE. WORLD CLASS FEATURES.

SPM4100

The lightweight DX4R PRO was conceived by racers for racers to deliver a combination of speed, sophistication and comfort no other 4-channel racing system can match.

## IMMEDIATE RESPONSE

Lowering lap times requires immediate response, no matter how crowded the signal environment may be. When used with the included SR2000 receiver, the DX4R PRO consistently achieves response rates that can put you on the podium. And it does so with a range of over 1,000 feet (300m) and the signal security of frequency-agile DSMR™ technology.

## FOUR CHANNELS AND ADVANCED MIXING

With four channels and an impressive list of available mixes at your fingertips, you will be able to use the DX4R PRO for all sorts of applications beyond just racing. In addition to user defined mixes it comes with pre-set mixes that include dual throttle, dual brake, MOA, 4-Wheel Steering and dual steering. Mixes can be switch-activated and adjusted on the fly as well.

Channels	4
Frequency	2.4GHz
Protocol	DSMR
Model Memory	50
Modes	Expert and Standard

## RACER-INSPIRED ERGONOMICS

Almost every contact point you have with the DX4R PRO can be adjusted for your comfort, including the size of the trigger. The steering wheel can be mounted on the left or right in either standard or drop down configurations. Steering and throttle tension can be adjusted. You can even swap the stock grip for a larger one that's included.

## FEATURES

- › Ultra responsive DSMR 5.5ms frame rate
- › Adjustable trigger size and tension
- › Large Backlit LCD Screen
- › 50-Model memory with ModelMatch™ technology
- › 4 User-defined mixes
- › Pre-set mixes include dual throttle, dual brake, MOA, 4WS, and dual steering
- › AVC™ technology programming\*
- › Switch-activated mix rates
- › On-the-fly mix rate control
- › Traction control and ABS
- › SD card reader for RaceWare™ software updates
- › Integrated antenna
- › Inactivity alarm
- › Left-hand configurable (parts to position the steering wheel in the standard position included)

\* Available with a free firmware update from [spektrumrc.com](http://spektrumrc.com).



  
SPEKTRUM.

  
COMPATIBLE

  
DSMR



INTEGRATED ANTENNA



ADJUSTABLE TRIGGER SIZE AND TENSION



BUILT-IN TELEMETRY



INCLUDES TWO RECEIVERS FOR THE PRICE OF ONE— THE SR2000 MICRO RACE RECEIVER AND A FREE SR410 SPORT RECEIVER.



4-CHANNELS AND ADVANCED MIXING



50-MODEL INTERNAL MEMORY



## ADD AVC TECHNOLOGY TO **ANY** VEHICLE!

Imagine a system that immediately improves the drivability of even the most overpowered brushless vehicles, making each vehicle more controllable and manageable no matter the driver's skill level. That's what you get with AVC™ (Active Vehicle Control™) technology, the latest innovation in surface stabilization from Horizon Hobby. Installed on virtually any RC vehicle and used with a Spektrum compatible transmitter, like the DX4C or DX4S, you get more control and a more manageable vehicle in all driving environments.

The system is flexible enough to cater to everyone from the newbie to the advanced enthusiast. Plus, the system can be tuned to match individual driving styles and the terrain. The bottom line is the transmitter/receiver combo can work with any vehicle on the market today allowing you to take full advantage of a vehicle's performance potential—hit ramps head on and rip through turns with confidence.

# SPEKTRUM RADIO SYSTEMS: THE KILLER COMBINATION

SPM4210  
DX4C DSMR 4-Channel Radio with SRS4210

The DX4C transmitter and SRS4210 receiver combo is the perfect radio system for whatever you drive. Priced at under \$150.00 USD, you get a Spektrum™ 2.4GHz computer radio with an array of features typically found in higher priced models as well as the new DSMR-equipped SRS4210 receiver with patent-pending AVC™ (Active Vehicle Control™). The DX4C uses 4-channels to operate steering, throttle and AVC technology separately. The first two channels operate steering and throttle while the second two manage AVC steering and throttle augmentation. By having two channels dedicated to managing AVC technology, users can adjust the steering and throttle elements independently of the other for more refined tuning to meet demands of any surface.

### FEATURES

- › DSMR Protocol
- › 4-channels for independent adjustment of steering and throttle AVC operation
- › 4-channels gives you more options to control winches, lights, reverse gear, and other features on your crawler or truck
- › Integrated antenna
- › Backlit LCD Screen
- › Includes SRS4210 AVC receiver
- › 20-model memory
- › New programming adds new pre-set mixes and other programming features
- › New matte black finish
- › Computer radio with LCD
- › New grip design for optimal comfort



TO LEARN MORE ABOUT HOW AVC TECHNOLOGY WORKS, VISIT [SPEKTRUMRC.COM/AVC](http://SPEKTRUMRC.COM/AVC).

### SPM4010 DX4S 4-Ch DSMR Radio System with SRS4210

The DX4S 4-channel sport radio system gives everyone from entry-level RC drivers to hardcore backyard bashers an impressive list of features that make setup and driving a lot more fun. The frequency-agile, Spektrum™ DSMR™ technology it's built around delivers outstanding range and response in all types of environments, especially those where a lot of 2.4GHz systems are in use at once. The transmitter includes both the SR410 sport 4-channel DSMR receiver and the SRS4210 receiver with patent-pending AVC™ (Active Vehicle Control™). Put it all together and you get a full-featured transmitter/receiver that can take on any terrain.

### FEATURES

- › DSMR Protocol
- › Includes SRS4210 AVC receiver and a FREE SR410 sport receiver
- › Backlit LCD Screen
- › 30-model memory
- › 2 user-defined, programmable mixes
- › Pre-set mixes, including 4-wheel steering
- › Switch-activated mix rates
- › Integrated antenna
- › New matte black finish
- › Optional telemetry
- › Computer radio with LCD and SD card reader

### AVC- The Spektrum SRS4210 Receiver

The Spektrum SRS4210 and its patent-pending AVC technology can make any RC car, truck or buggy drive like its on rails. Using sensors and exclusive software, AVC technology calculates a vehicle's attitude many times per second and makes instantaneous corrections to steering and throttle so it stays precisely on the trajectory you command. The amount of steering and throttle stability provided can be adjusted to suit your skill level or driving style.

Best of all, driving with AVC technology feels completely natural. There is no lag in response or limits on your control. You simply feel like you're driving a finely tuned vehicle that handles beautifully at every speed.



# DX2E

## WITH INTEGRATED ANTENNA

SPM2322

Sport drivers, if you want a radio with everything needed to bash your vehicles around with proven Spektrum™ performance, reliability and range, the DX2E radio is for you.

Channels	2
Frequency	2.4GHz
Protocol	DSMR
Model Memory	None



### FEATURES

- › DSMR protocol
- › Servo reversing
- › Sharp, ergonomic style
- › Throttle and steering trim dials
- › Steering rate dial
- › LED low-voltage warning
- › Fuelproof case

### SPMSR201

SR201 2-channel DSM sport receiver included.



	SPMR2400	SPMR2200
Description	DX2L 2-Channel DSM Surface Transmitter	DX2M 2-Channel DSM Stick Surface Transmitter
Channels	2	2
Frequency	2.4GHz	2.4GHz
Protocol	DSM, DSM2 and Marine	DSM, DSM2 and Marine
Model Memory	None	None

**AVC**  
COMPATIBLE

DSM **R**

# MORE RECEIVERS FOR MORE APPLICATIONS

## RACING RECEIVERS

Take full advantage of lightning-fast DSM response rates while saving weight and chassis space at the same time.



**SPMSR3520**\_\_\_\_  
SR3520 DSM2 3-Channel Micro Race Receiver

## SPORT RECEIVERS

Whatever you drive and whatever your budget, there is a Spektrum sport receiver for you.



**SPMSR201**\_\_\_\_  
SR201 2-Channel DSM Sport Receiver



**SPMSR301**\_\_\_\_  
SR301 3-Channel DSM Sport Receiver



**SPMSR3100**\_\_\_\_  
SR3100 DSM2 3-Channel Receiver



**SPMSR3300T**\_\_\_\_  
SR3300T DSM 3-Channel Receiver with Telemetry



**SPMSR410**\_\_\_\_  
SR410 4-Channel DSMR Sport Receiver\*

\*Only for use with DSMR transmitters. See page 48-49 for details.



**SPMSRS4210**\_\_\_\_  
SRS4210 4-Channel DSMR Receiver with AVC

\*Only for use with DSMR transmitters. See page 48-49 for details.

## MARINE RECEIVERS

Specifically designed for boats, these receivers are compatible with all Spektrum transmitters that feature the marine protocol.



**SPMMR200**\_\_\_\_  
MR200 2-Channel Marine Sport Receiver



**SPMMR3000**\_\_\_\_  
MR3000 3-Channel Marine Receiver

Product #	Product Name	Channels	Band	Length	Width	Height	Weight	Voltage Range
<b>SPMMR200</b>	MR200 Marine 2.4GHz 2-Channel Sport Receiver	2	2.4GHz	1.6 in (41 mm)	1.0 in (27mm)	0.6 in (15mm)	0.36 oz (10 g)	3.5-9.6V
<b>SPMMR3000</b>	MR3000 Marine 2.4GHz 3-Channel Receiver	3	2.4GHz	1.3 in (34mm)	0.8 in (19mm)	0.2 in (5mm)	0.21 oz (6 g)	3.5-9.6V
<b>SPMSR201</b>	SR201 2CH DSM Sport Rx coated	2	2.4GHz	1.62 in (41mm)	1.06 in (27mm)	0.58 in (15mm)	0.36 oz (10 g)	3.5 - 9.6V
<b>SPMSR200WP</b>	SR200WP 2-Channel Potted Waterproof Receiver	2	2.4GHz	1.7 in (44mm)	1.2 in (30mm)	0.6 in (15mm)	1.2 oz (34 g)	3.5-9.6V
<b>SPMSR301</b>	SR301 3ch DSM Sport Rx coated	3	2.4GHz	1.6 in (41mm)	1.06 in (27mm)	0.58 in (15mm)	0.3 oz (9 g)	3.5-9.6V
<b>SPMSR300WP</b>	SR300WP 3-Channel Potted Waterproof Receiver	3	2.4GHz	1.7 in (44mm)	1.2 in (30mm)	0.6 in (15mm)	1.2 oz (34 g)	3.5-9.6V
<b>SPMSR410</b>	SR410 4-Channel DSMR Sport Receiver	4	2.4GHz	1.3 in (32.8mm)	0.8 in (19mm)	0.5 in (12.2mm)	0.25 oz (7.2 g)	3.5-9.6V
<b>SPMSR3100</b>	SR3100 DSM2 3-Channel Receiver	3	2.4GHz	1.3 in (33.1mm)	0.9 in (21.6mm)	0.5 in (12.35mm)	21 oz (6 g)	3.5-9.6V
<b>SPMSR3300T</b>	SR3300T DSM 3-Channel Receiver with Telemetry	3	2.4GHz	1.6 in (41mm)	1.1 in (27mm)	0.6 in (15mm)	0.39 oz (11 g)	3.5-9.6V
<b>SPMSR3520</b>	SR3520 DSM2 3-Channel Micro Race Receiver	3	2.4GHz	0.8 in (21mm)	1.0 in (26mm)	0.5 in (12mm)	0.1 oz (4 g)	3.5-9.6V
<b>SPMSRS4210</b>	SRS4210 4-Channel DSMR RX with AVC	4*	2.4GHz	1.46 in (37.2mm)	1.02 in (25.8mm)	0.51 in (13mm)	0.39 oz (10.9g)	3.5-9.6V
<b>SPMSR2000</b>	SR2000 DSMR Micro Race Receiver	2 @ 5.5ms 3 @ 5.5+ms	2.4GHz	0.7 in (17.6 mm)	1.0 in (25.5 mm)	0.5 in (13.6 mm)	0.2 oz (5.5g)	3.5-9.6V

\* (2 with AVC enabled)

spektrumrc.com | horizonhobby.com

SAME BLOCK OF COPY AS NURNBERG BROCHURE

# SURFACE SERVOS

JOIN THE THOUSANDS WHO DEPEND ON SPEKTRUM™ SERVOS TO MAKE THEIR DRIVING OR RACING EXPERIENCE THE BEST IT CAN BE.



## SPMSS9010

S9010 HV 1/5-Scale Digital Surface Servo

The S9010 delivers a lot of performance for the money making it a great replacement for the servos in many 1/5-scale ready-to-run vehicles.

SPMSS9010
1/5-Scale Vehicles
472 oz-in (33.9 kg-cm) @ 7.4V
0.12 sec/60° @ 7.4V
71 x 30.4 x 45.7
N/A
Metal



## SPMSS3070

S3070 Sub-Micro Surface Servo - MG

The S3070 is the perfect water-resistant sub-micro servo for mini vehicles. Its durable metal gear train keeps movement precise and backlash free.



## SPMSS6020

S6020 Digital Surface Servo - Torque

The S6020 servo puts out an impressive 146 oz-in of torque and boasts an all metal gear train. It delivers all this torque with the silky smooth precision of a dual ball-bearing output shaft.



## SPMSS6030

S6030 Digital Surface Servo - High-Torque

The S6030 servo can generate an incredible 278 oz-in of torque, making it the perfect 1/10-scale servo for monster trucks, buggies and truggies. Metal gears and dual-ball bearing support give it no-slop precision.



## SPMSS6040

S6040 Digital Surface Servo - High-Speed

If speed is what you need, the .08-second transit time of the S6040 servo is exactly what you're after. Its 167 oz-in of torque is impressive too. It features a titanium gear train and coreless motor for longer life and a smoother operation.

	SPMSS3070	SPMSS6020	SPMSS6030	SPMSS6040
<b>Size/Application</b>	1/12 to 1/18-Scale Vehicles	1/10- and 1/8-Scale Vehicles	1/10-Scale Monster Trucks, Buggies and Truggies	1/10-Scale Monster Trucks, Buggies and Truggies
<b>Torque</b>	22 oz-in (1.6 kg-cm) @ 4.8V 27 oz-in (1.9 kg-cm) @ 6.0V	100 oz-in (7.2 kg-cm) @ 4.8V 146 oz-in (10.5 kg-cm) @ 6.0V	222 oz-in (16 kg-cm) @ 4.8V 278 oz-in (20 kg-cm) @ 6.0V	133 oz-in (9.6 kg-cm) @ 4.8V 167 oz-in (12 kg-cm) @ 6.0V
<b>Speed</b>	0.14 sec/60° @ 4.8V 0.11 sec/60° @ 6.0V	0.23 sec/60° @ 4.8V 0.19 sec/60° @ 6.0V	0.18 sec/60° @ 4.8V 0.15 sec/60° @ 6.0V	0.10 sec/60° @ 4.8V 0.08 sec/60° @ 6.0V
<b>Dimension L x W x H in mm</b>	22.7 x 11.5 x 25.5	41 x 20 x 39	41 x 20 x 38	40 x 20 x 37
<b>Weight</b>	13.6 g	49 g	52.4 g	52.4 g
<b>Gear</b>	Metal	Metal	Titanium	Titanium



### SPMSS6070

S6070 Digital Surface Servo - Low-Profile

Designed for 1/10-scale pan cars, or any chassis with limited space, the S6070 servo is capable of 125 oz-in of torque and a rather quick transit time of just .09 seconds.

### SPMSS6090

S6090 High-Voltage Surface Servo - Speed

Heavy-duty steel gears, digital precision and a class-leading .09 transit time make it a great steering servo choice for 1/8- and 1/10-scale racing or bashing. You also get the benefits of a coreless motor, dual ball bearings and heavy gauge connector wire.

### SPMSS6100

S6100 High-Voltage Surface Servo - Torque

The massive 361 oz-in of torque that the S6100 servo produces is perfect for 1/8-scale buggies, truggies and monster trucks. It provides all this torque while maintaining a relatively quick .11 second transit time.

### SPMSS6170

S6170 Standard Digital Surface Servo

Drivers of all skill levels who want to upgrade the servos in their ready-to-run 1/10-scale vehicles will find the S6170 is just what they are looking for.

### SPMSS6180

S6180 Standard Digital metal Gear Surface Servo

The dustproof, waterproof S6180, along with its 100 oz-in of torque and metal gear train, make it a great choice for 1/10 vehicles that spend a lot of time in the elements.

### SPMSS9020

S9020 HV 1/5-Scale Digital Surface Servo

The waterproof S9020 is one of the most durable and versatile servos engineered for 1/5 scale vehicles. It's designed for use with 2S LiPo receiver packs but will provide excellent performance with a 6V pack as well.

SPMSS6070	SPMSS6090	SPMSS6100	SPMSS6170	SPMSS6180	SPMSS9020
1/10-Scale Pan Cars	1/8-Scale Vehicles	1/8-Scale Vehicles	1/10-Scale Vehicles	1/10-Scale Vehicles	1/5-Scale Vehicles
97.2 oz-in (7 kg-cm) @ 4.8V 125 oz-in (9 kg-cm) @ 6.0V	181 oz-in (13 kg-cm) @ 6.0V 292 oz-in (21 kg-cm) @ 7.4V	208 oz-in (15 kg-cm) @ 6.0V 361 oz-in (26 kg-cm) @ 7.4V	70 oz-in (5.04 kg-cm) @ 4.8V 80 oz-in (5.76 kg-cm) @ 6.0V	82 oz-in (5.9 kg-cm) @ 4.8V 100 oz-in (6.8 kg-cm) @ 6.0V	627 oz-in (45.1 kg-cm) @ 7.4V
0.10 sec/60° @ 4.8V 0.09 sec/60° @ 6.0V	0.11 sec/60° @ 6.0V 0.09 sec/60° @ 7.4V	0.13 sec/60° @ 6.0V 0.11 sec/60° @ 7.4V	0.17 sec/60° @ 4.8V 0.14 sec/60° @ 6.0V	0.18 sec/60° @ 4.8V 0.14 sec/60° @ 6.0V	0.16 sec/60° @ 7.4V
40.8 x 20.2 x 25.4	40 x 20 x 32	41 x 20 x 32	38.4 x 18.5 x 34.5	38.4 x 18.8 x 34.5	71 x 30.4 x 45.7
44.5 g	62 g	62 g	32 g	42 g	N/A
Metal	Steel	Steel	Nylon	Metal	Metal

# ACCESSORIES

## AIR SYSTEM ACCESSORIES



**SPMA3060**\_\_\_\_  
USB-Interface: UM AS3X Programmer



**SPM9521**\_\_\_\_  
1500mAh NiMH Transmitter Pack



**SPM9527**\_\_\_\_  
2100mAh NiMH AA (4 Pack)



**SPMMSJR710**\_\_\_\_  
DSM2 Air Module with  
AR7000 JR-Compatible



**SPMMSFUT720**\_\_\_\_  
DSM2 Air Module with AR7010 Futaba-Compatible



**SPMA3030**\_\_\_\_  
USB-Interface: 7200BX



**SPMB2000LITX**\_\_\_\_  
2000mAh Lithium Ion Tx Pack



**SPMB2500LPTX**\_\_\_\_  
2500mAh LiPo Tx Pack



**SPM9540**\_\_\_\_  
Spektrum Flight Log



**SPMP300**\_\_\_\_  
Spektrum Neckstrap



**SPM6708**\_\_\_\_  
Spektrum Single Stand-Up Transmitter Case

SPMB1350LP	LiPo Receiver Pack 1350mAh
SPMB2000LP	LiPo Receiver Pack 2000mAh
SPMB2150NM	2150mAh 6.0V NiMH Receiver Pack
SPMB2700NM	2700mAh 6.0V NiMH Receiver Pack
SPMB4000LP	LiPo Receiver Pack 4000mAh
SPMB4500NM	4500mAh 6.0V NiMH Receiver Pack
SPMB6000LP	LiPo Receiver Pack 6000mAh
SPMB2000LITX	DX9 Transmitter Replacement Li-Ion Battery



**SPMB2600LPTX**\_\_\_\_  
2600mAh LiPo Tx Pack



**SPM6706**\_\_\_\_  
Spektrum Deluxe Double Aircraft Transmitter Case

SPMA3020	Spektrum Deluxe Shoulder Harness
SPMMSJR710	DSM2 Air Module with AR7000 JR (Compatible with JR 347, 388, 783, PCM10, PCM10S, PCM10SX, PCM10SXII, XP8103, XP9303 and 10X transmitters)
SPMMSFUT720	DSM2 Air Module with AR7010 Futaba (Compatible with Futaba 7U, 8U, 8J, 9C, 9Z, FN series transmitters)
SPM9540	Spektrum Flight Log Indicates system and receiver pack voltage as well as number of antenna fades, frame losses and holds encountered during a flight
SPM6706	Spektrum Deluxe Double Aircraft Transmitter Case
SPM6708	Spektrum Single Stand-Up Aircraft Transmitter Case
SPMP300	Spektrum Neckstrap

# SURFACE SYSTEM ACCESSORIES

## TELEMETRY ACCESSORIES

Spektrum telemetry technology lets you keep tabs on your vehicle's vitals in real time. Engine rpm, cylinder head temps, battery voltage - all the data you need to measure the effects of tuning changes or catch problems early.\*



SPM1450\_\_\_  
Cylinder Head Temperature  
Sensor



SPM1452\_\_\_  
RPM Sensor



SPM1451\_\_\_  
Battery/Electric Motor  
Temperature Sensor

SPM1450	Cylinder Head Temp Sensor
SPM1451	Battery/Electric Motor Sensor
SPM1452	RPM Sensor
SPM1502	Sensor Mount Hardware:
SPM1503	Sensor Mount Hardware:
SPM1510	Battery Voltage Lead
SPM1511	Telemetry Module Connector
SPM1513	Hook and Loop Mounting Tape:
SPM1515	Lap Sensor Mount
SPM1516	Y-Harness: Telemetry

\*Use of these accessories requires a telemetry-capable Spektrum surface transmitter and receiver.

## ACCESSORIES

Transmitter cases, servo extensions, optional transmitter wheels and grips - you'll find it all right here.



SPM6713\_\_\_  
Spektrum Aluminum Surface  
Transmitter Case



SPM6705 \_\_\_  
Spektrum Transmitter Case  
Foam Surface

SPM6705	Transmitter Case Foam
SPM6713	Surface Transmitter Case

For complete details on these, and the many other Spektrum accessories that are available, visit [spektrumrc.com](http://spektrumrc.com).



**SPEKTRUM.**

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**HORIZON**  
H O B B Y

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