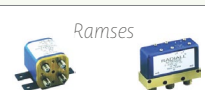




A. Switch Type

Family

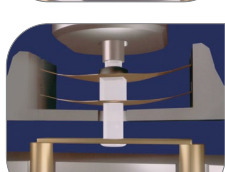
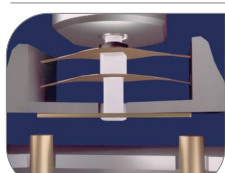
- Subminiature
- Platinum
- Titanium
- Slimline



Self aligned small size pusher • Low insertion loss • High level of power • **Without guide pins** • No friction, no dust • Long life • **RF contact improved** • Low contact resistance

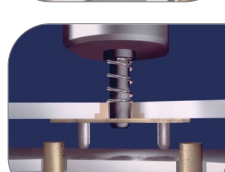
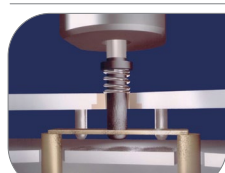
The **Radiall Modular System for Electromechanical Switches (RAMSES)** is a patented technology that enables microwave coaxial switches to be produced with a typical operating life of ten million cycles without a decrease in contact resistance reliability over time. Most competitor's products can only achieve one million cycles. In addition, the unique internal construction makes the switches modular, which reduces the cost and lead time.

RAMSES Concept



10,000,000 actuations

Previous Design



1,000,000 actuations

Series

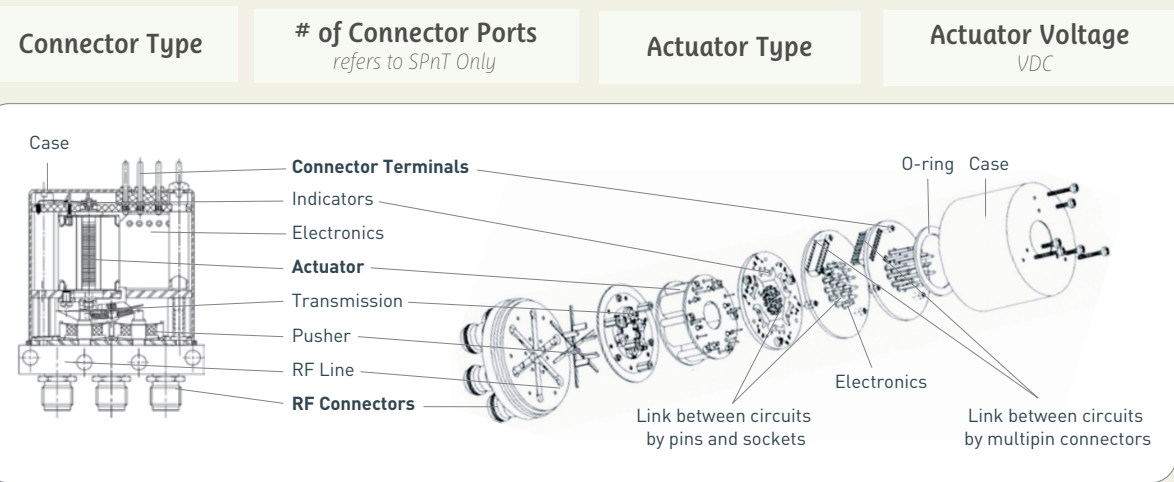
RF Type (Switch configuration)

- SPDT Single Pole Double Throw
- DPDT Double Pole Double Throw
- DP3T Double Pole Three Throw
- SPnT Single Pole Multi Throw

Frequency

Measured in GHz. Current range is DC-50 GHz (Max)

B. Parts



Connector Terminals may be solder pins or D-Sub.

C. Electrical Options

- Indicator Circuit**
Indicates position of RF contacts
- TTL Drive**
Transistor Transistor Logic
- Self Cutoff**
Disconnects actuator voltage after state is switched
- Diodes**
Suppress transient voltage

D. Other Options

- RF Terminated
- Repeatability Guarantee
- Life Cycles



A. Switch Type

B. Parts

C. Electrical Options

D. Other Options

| Family | Series | RF Type (switch config.) | Frequency (GHz)** | | | | | | | | Connector Type | # of Connector Ports | Actuator Type | | | Actuator Voltage | Indicator Circuit | TTL Drive | Self Cutoff | Diodes | RF Terminated | Repeatability Guarantee | Life Cycles (Millions) |
|----------------------|--------------|--------------------------|-------------------|---------|---|---|------|----|----|---------------------------------|---------------------------------|-----------------------------------------|---------------|-------|-------|------------------|-------------------|-----------------|------------------------|----------------------------|---------------|-------------------------|------------------------|
| | | | 2.5 | 3 | 6 | 8 | 12.4 | 18 | 20 | 22 | | | 26.5 | 40 | 50 | | | | | | | | |
| RAMSES | R573 R574 | SPnT | 8 | | | | | | | | SMA2.9 (40GHz) | 3 - 6 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | Yes (Internal loads) No | No | 2 | |
| | | SPnT | 3 | 4 or F* | | | | F | F | F | SMA (3, 18, 22 & 26.5GHz) | 3 - 6 ways 12 ways F* 8 - 10 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | Yes (Internal loads) No | No | 2 | |
| | R570 | SPnT | 7 | | | | | | | | SMA2.9 (26.5GHz) | 3 - 6 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | No | No | 2 | |
| | | SPnT | E | | | | | | | | QMA (6GHz) | 3 - 6 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | No | No | 5 | |
| | | SPnT | 9 | | | | | | | | DIN 1.6/5.6 (2.5GHz) [75Ω only] | 3 - 6 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | No | No | 2 | |
| | | SPnT | 0 | 1 | | 1 | | | | | N (3, 8, & 12.4GHz) | 3 - 6 ways 7 - 12 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | Yes | No | 2 | |
| | | SPnT | 2 | | | | | | | | BNC (3GHz) | 3 - 6 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | No | No | 2 | |
| | | SPnT | 5 | | | | | | | | TNC (3 & 12.4GHz) | 3 - 6 ways | ■ | ■ | 12/28 | Yes | Yes | Yes if latching | Yes | No | No | 2 | |
| | | SPDT | J | | | | | | | | 2.4mm (50GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| | | SPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 10 | |
| | | SPDT | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes | No | No | 10 |
| | | SPDT | E | | | | | | | | QMA (6GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 10 | |
| | SPDT | 9 | | | | | | | | DIN 1.6/5.6 (2.5GHz) [75Ω only] | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 5 | | |
| | SPDT | B | | | | | | | | SMB (3GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | SPDT | C | | | | | | | | SMC (3GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | SPDT | H | | | | | | | | Mini SMB (3GHz) [75Ω only] | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | SPDT | A | | | | | | | | PC board mount (3GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 5 | | |
| | SPDT | 0 | 1 | | | | | | | N (3 & 12.4GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes | No | No | 2.5 | |
| | SPDT | 0 | 1 | | D | | | | | TNC (3, 12.4 & 18GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | SPDT | 2 | | | | | | | | BNC (3GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| R572 (low height) | SPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | E | | | | | | | | QMA (6GHz) | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | 9 | | | | | | | | DIN 1.6/5.6 (2.5GHz) [75Ω only] | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | B | | | | | | | | SMB (3GHz) | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | C | | | | | | | | SMC (3GHz) | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | H | | | | | | | | Mini SMB (3GHz) [75Ω only] | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2.5 | | |
| | SPDT | J | | | | | | | | 2.4mm (50GHz) | 3 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2 | | |
| | DPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes | No | No | 2.5 | |
| | DPDT | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| R577 | DPDT | E | | | | | | | | QMA (6GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | DPDT | 9 | | | | | | | | DIN 1.6/5.6 (2.5GHz) [75Ω only] | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | DPDT | 0 | 1 | | | | | | | N (3 & 12.4GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | DPDT | 5 | 6 | | | | | | | TNC (3 & 12.4GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | DPDT | 2 | | | | | | | | BNC (3GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2.5 | | |
| | R585 | SPDT ZC (ZC=terminated) | 8 | | | | | | | | SMA2.9 (40GHz) | 5 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (2 external loads) | No | 2 | |
| | | SPDT ZC (ZC=terminated) | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (2 external loads) | No | 2 | |
| | | SPDT ZC (ZC=terminated) | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 5 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (2 external loads) | No | 10 | |
| | | SPDT ZC (ZC=terminated) | J | | | | | | | | 2.4mm (50GHz) | 5 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (2 external loads) | No | 2 | |
| | | DP3T | 8 | | | | | | | | SMA2.9 (40GHz) | 5 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| DP3T | | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 5 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes | No | No | 10 | |
| DP3T | | J | | | | | | | | 2.4mm (50GHz) | 5 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | | |
| BYPASS | | 8 | | | | | | | | SMA2.9 (40GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (1 external loads) | No | 2 | | |
| BYPASS | | 3 | 4 | | | | F | | | SMA (3, 18 & 26.5GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (1 external loads) | No | 10 | | |
| BYPASS | | J | | | | | | | | 2.4mm (50GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | Yes (1 external loads) | No | 2 | | |
| SUBMINIATURE | R591 | SPnT | 3 | 4 | | | | F | | | SMA (6 & 26.5GHz) | 4 - 6 ways | ■ | ■ | 12/28 | No | Yes if N Open | No | Yes | No | No | 10 | |
| | | SPnT | E | | | | | | | | QMA (6GHz) | 4 - 6 ways | ■ | ■ | 12/28 | No | Yes if N Open | No | Yes | No | No | 10 | |
| | | SPnT | 8 | | | | | | | | SMA2.9 (40GHz) | 4 - 6 ways | ■ | ■ | 12/28 | No | Yes if N Open | No | Yes | No | No | 2 | |
| PLATINUM | R593 | DPDT | 3 | 4 | | | | F | | | SMA (6,20 & 26.5GHz) | 4 ports | ■ | ■ | 24 | Yes | Yes | Yes | Yes | No | 0.03 dB | 10 | |
| | | DPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 4 ports | ■ | ■ | 24 | Yes | Yes | Yes | Yes | No | 0.03 dB | 5 | |
| | R594 | SPnT | 3 | 4 | | | | F | | | SMA (6,20 & 26.5GHz) | 4 - 6 ways | ■ | ■ | 24 | Yes | Yes | Yes | Yes | Yes (Internal loads) | No | 10 | |
| | | SPnT | 8 | | | | | | | | SMA2.9 (40GHz) | 4 - 6 ways | ■ | ■ | 24 | Yes | Yes | Yes | Yes | Yes (Internal loads) | No | 2 | |
| | R595 | SPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 3 ports | ■ | ■ | 15/24 | Yes | Yes | Yes | Yes | No | 0.05 dB | 10 | |
| | | SPDT | 3 | 4 | | | | F | | | SMA (6,20 & 26.5GHz) | 3 ports | ■ | ■ | 15/24 | Yes | Yes | Yes | Yes | No | 0.03 dB | 10 | |
| | | SPDT ZC (ZC=terminated) | 8 | | | | | | | | SMA2.9 (40GHz) | 5 ports | ■ | ■ | 15/24 | Yes | Yes | Yes | Yes | Yes (External loads) | No | 2.5 | |
| | | SPDT ZC (ZC=terminated) | 3 | 4 | | | | F | | | SMA (6,20 & 26.5GHz) | 3 ports | ■ | ■ | 15/24 | Yes | Yes | Yes | Yes | Yes (Internal loads) | No | 10 | |
| | | DP3T | 8 | | | | | | | | SMA2.9 (40GHz) | 5 ports | ■ | ■ | 15/24 | Yes | Yes | Yes | Yes | No | 0.05 dB | 10 | |
| | | DP3T | 3 | 4 | | | | F | | | SMA (6,20 & 26.5GHz) | 5 ports | ■ | ■ | 15/24 | Yes | Yes | Yes | Yes | No | 0.03 dB | 10 | |
| TITANIUM | R51X | SPnT | 8 | | | | | | | | SMA2.9 (40GHz) | 4 - 6 ways | ■ | ■ | 24 | Yes | Yes | Yes | Yes | N/Y (Internal loads) | 0.05 dB | 1 | |
| | | SPnT | 3 | 4 | | | | F | | | SMA (6,20 & 26.5GHz) | 4 - 6 ways | ■ | ■ | 24 | Yes | Yes | Yes | Yes | N/Y (Internal loads) | 0.03 dB | 2.5 | |
| | SLIM LINE | R596 | SPDT | 3 | 8 | | | | | | | None (3 & 8GHz) | None | ■ | ■ | 12/24 | No | No | No | No | No | No | 2 |
| | | | BYPASS | 3 | 8 | | | | | | | None (3 & 8GHz) | None | ■ | ■ | 12/24 | No | No | No | No | No | No | 2 |
| RAMSES Low Pim | R570xxxxxLP | SPDT | 4 | | | | | | | | SMA (18GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| | | SPDT | 1 | | | | | | | | N (12.4GHz) | 3 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| | R577xxxxxLP | DPDT | 4 | | | | | | | | SMA (18GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| | | DPDT | 1 | | | | | | | | N (12.4GHz) | 4 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| | R573xxxxxLP | SPnT | 4 | | | | | | | | SMA (18GHz) | 6 ports | ■ | ■ | 12/28 | Yes | No | No | No | No | No | 2 | |
| | | SPnT | 1 | | | | | | | | N (12.4GHz) | 6 ports | ■ | ■ | 12/28 | Yes | Yes | Yes | Yes | No | No | 2 | |
| | Tvac | R571F63121 | SPDT | F | | | | | | | | SMA (22GHz) | 2 ports | ■ | ■ | 28 | Yes | No | Yes | Yes | No | No | 10 |
| | | | SPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 2 ports | ■ | ■ | 28 | Yes | No | Yes | Yes | No | No | 10 |
| | | R578F63121 | DPDT | F | | | | | | | | SMA (22GHz) | 4 ports | ■ | ■ | 28 | Yes | No | Yes | Yes | No | No | 2.5 |
| | | | DPDT | 8 | | | | | | | | SMA2.9 (40GHz) | 4 ports | ■ | ■ | 28 | Yes | No | Yes | Yes | No | No | 2.5 |
| R583xxx122 & 121 | | SPnT | F | | | | | | | | SMA (22GHz) | 4 & 6 ports | ■ | ■ | 28 | Yes (separated) | No | No | No | No | No | 5 | |
| | | SPnT | 8 | | | | | | | | SMA2.9 (40GHz) | 6 ports | ■ | ■ | 28 | Yes (separated) | No | No | No | No | No | 2 | |

Note: Please consult the coaxial switching catalog for other P/N selection digits (electrical options & other options). BCD (Binary Code Decimal) available for SPnT only. *Indicates 75 Ohm product. Switches are break-before-make and 50 Ohms Impedance unless otherwise specified. **Corresponding 4th P/N selection digit inside arrows.



Coaxial Switches



area offices
local contacts

Our most important connection is with you.™

It's not just a slogan. It's a statement of our earnest desire to put you at the forefront of all our business practices. As part of Radiall's mission to be available and accessible, we make it a priority to have local offices around the globe ready and able to assist you – wherever you are, whenever you need us.

Europe

| | ADDRESS | PHONE | FAX | EMAIL |
|----------------|------------------------------------------------------------------------------|----------------------|---------------------|--------------------|
| FINLAND | Radiall Finland PO Box 202 - 90101 Oulu | +358 407522412 | | infofi@radiall.com |
| FRANCE | Radiall SA 25 Rue Madeleine Vionnet - 93300 Aubervilliers | +33 (0)1 49 35 35 35 | | info@radiall.com |
| GERMANY | Radiall GmbH Carl-Zeiss Str. 10 - D 63322 Rödermark | +49 60 74 91 07 0 | +49 60 74 91 07 10 | infode@radiall.com |
| ITALY | Radiall Elettronica S.R.L Via Della Resistenza 113 - 20090 Buccinasco Milano | +39 02 48 85 121 | +39 02 48 84 30 18 | infoit@radiall.com |
| NETHERLANDS | Radiall Nederland BV Hogebrinkerweg 15b - 3871 KM Hoevelaken | +31 (0)33 253 40 09 | +31 (0)33 253 45 12 | infont@radiall.com |
| SWEDEN | Radiall AB Sollentunavägen 63 - 191 40 Sollentuna | +46 8 444 34 10 | | infose@radiall.com |
| UNITED KINGDOM | Radiall Ltd 6 Union Park - Packet Boat Lane - Uxbridge, Middlesex UB8 2GH | +44 (0)1895 425000 | +44 (0)1895 425010 | infouk@radiall.com |

Asia

| | ADDRESS | PHONE | FAX | EMAIL |
|-----------|--------------------------------------------------------------------------------------------------------------------------------|------------------|------------------|--------------------|
| CHINA | Shanghai Radiall Electronics CO, Ltd N° 390 Yong He Rd SHANGHAI 200072 P.R.C | +86 21 66523788 | +86 21 66521177 | infozh@radiall.com |
| HONG KONG | Radiall Electronics (Asia) Ltd Flat D, 6/F, Ford Glory Plaza, 37-39 Wing Hong Street - Cheung Sha Wan - Kowloon - Hong Kong | +852 29593833 | +852 29592636 | infohk@radiall.com |
| INDIA | Radiall India Pvt. Ltd 25.D.II phase Peenya Industrial Area. Bangalore-560058 | +91 80 83 95 271 | +91 80 83 97 228 | infoin@radiall.com |
| JAPAN | Nihon Radiall Shibuya-Ku Ebisu 1-5-2, Kougetsu Bldg 405 - Tokyo 150-0013 | +81 3 34406241 | +81 3 34406242 | infojp@radiall.com |

Americas

| | ADDRESS | PHONE | FAX | EMAIL |
|--------------|------------------------------------------------------------------|-----------------|-----------------|---------------------|
| USA & CANADA | Radiall USA, Inc. 8950 South 52nd Street Ste 401 Tempe, AZ 85284 | +1 480-682-9400 | +1 480-682-9403 | infousa@radiall.com |

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Connectivity has a profound and dramatic impact on the lives of people throughout the world. Because of advancements in technology, our lives are more convenient, more secure, more enjoyable and richer than ever. The speed of data enables communication in the most remote areas so people can reach all corners of the globe, allows for important defense and security, and facilitates space exploration. But technology doesn't just happen. It starts in the mind with ideas, making connections never considered in ways that nobody dreamed possible. Seeing the future in ways previously unimagined is the act of innovation and it begins with people – the inventors, the dreamers, the pioneers and the engineers – enriching the lives of billions. At Radiall, we have one single, solitary mission; Empower the people that enrich our lives. Enable their innovation by providing reliability and repeatability. Give them useful information and provide them with valuable guidance when determining the best course for success. We don't invent the future, we enable it. We inspire innovation, we embrace challenges, we challenge the conventional and we collaborate with you to succeed. At Radiall, we're proud to say – Our most important connection is with you.

