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NEW Product Releases

Waveguide Couplers/Hybrids/Power Dividers

Quote

Sierra Microwave Technology, a leader in space qualified/hi-rel microwave components, has expanded its product line with the addition of waveguide power dividers and couplers. The units shown are space qualified WR-51/WR-62 one-to-three (4.77 dB) and one-to-two (3.0 dB) power dividers with integral loads (available from 1 to > 250 Watt CW - dependant on the waveguide size). The units shown operate across the frequency range of 17.0 to 18.0 GHz (frequency ranges from approximately 7 to 65 GHz and associated waveguide sizes from WR-112 to WR-15 are also available) with specs of 26 dB minimum isolation (30 dB typical), 23 dB minimum return loss (30 dB typical), 0.09 dB maximum insertion loss (0.05 dB typical), < 0.05 dB typical output amplitude balance, <.02 dB typical insertion loss flatness, over an operating temperature range of -30 to +70 ° C.

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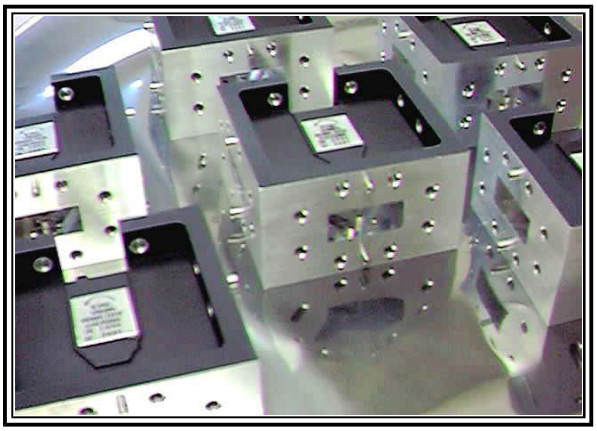
High Power Waveguide Isolators and Circulators



Quote

Sierra Microwave Technology, a leader in space qualified/hi-rel microwave components, has expanded its product line with the introduction of a line of space qualified high powered waveguide isolators and circulators. The unit shown is a WR112 circulator designed to handle 500 Watt CW (4000 Watts peak) over the frequency range of 7.0 to 9.0 GHz with 0.15 dB maximum insertion loss (0.1 Typ) over a temperature range of -20 to +60° C. The unit's performance is exceptionally stable over temperature/power. The device weighs under 365 grams and its dimensions are 3.00 " x 2.81 " x 1.75". Waveguide isolators and circulators are available in operating frequencies between 2.9 and 65.0 GHz in both standard and high power designs.

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Low Loss Imux Isolators and Circulators

Quote

Sierra Microwave Technology, a leader in space qualified/hi-rel microwave components, has expanded its product line with the introduction of a line of space qualified IMUX isolators and circulators. The unit shown is designed to handle 1 Watt CW (50 Watts peak) over the frequency range of 10.7 to 12.8 GHz with specs of 23 dB minimum isolation (26 dB Typ), 1.15:1 maximum VSWR (1.10:1 Typ) and 0.3 dB maximum insertion loss (0.2 Typ) over a temperature range of -30 to +65° C (Storage temperature -54 to +100° C). The unit's performance is exceptionally stable over temperature making it especially valuable for input multiplexer (IMUX) applications. The unit is RFI shielded to –80 dBc. The unit's dimensions are 0.66 " x 0.75 " x 0.58 ". The version as shown is a right angle device with gold plated female connectors on the input and output ports. Straight through versions and male connectors are also available.

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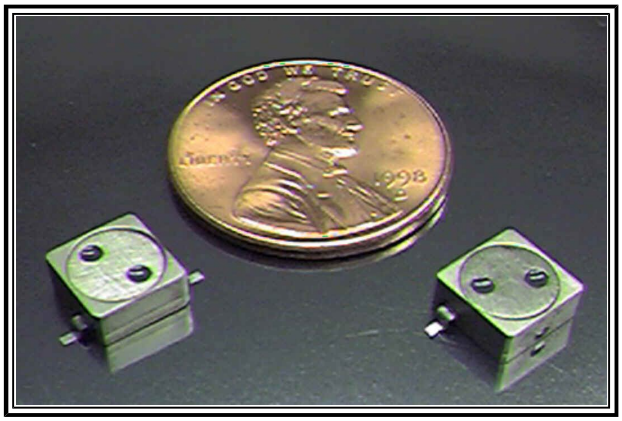
New Shielded Surface Mount Drop-in Isolators and Circulators



Quote

Sierra Microwave Technology, a leader in space qualified/hi-rel microwave components, has expanded its product line with the introduction of a line of shielded surface mount drop-in isolators and circulators. The unit shown is designed to handle 1 Watt CW (50 Watts peak) over the frequency range of 12 to 14 GHz (the package covers 9 to 15 GHz in 15 % bandwidths) with specs of 18 dB minimum isolation (20 dB Typ), 1.30:1 maximum VSWR (1.25:1 Typ) and 0.5 dB maximum insertion loss (0.35 Typ) over a temperature range of -30 to +70° C. The unit's dimensions are 0.25" x 0.25" x 0.13". The

unit is designed for solder reflow at temperatures up to 210^{o} C.

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Space-Qualified Waveguide Diplexers

Quote

Sierra Microwave Technology, a leader in space-qualified microwave components, has expanded its product line with the introduction of a high powered, space qualified diplexer. The unit shown is an extended C-Band co-polarized waveguide diplexer featuring compact size and outstanding performance. Operating over the 3.4-4.2 and 5.7-6.725 GHz bands with a WRD350 common port, this diplexer provides more than 70dB isolation between the WR229 and the WR137 ports over the 3.4-4.2 GHz band and more than 50dB isolation between these ports over the 5.7-6.725 GHz band. These high isolations are achieved with insertion losses of less than 0.15 dB between the common port and either the WR229 or WR137 ports over the appropriate bands. SMT also produces connectorized space-qualified diplexers.

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New Reduced-Size Broadband Isolator

Quote

Sierra Microwave Technology, a leader in the isolator and circulator industry, has expanded its product line with the introduction of a reduced-size 2.0 to 6.0 GHz connectorized isolator. The

SMS2060has 1/4 the volume of a standard SMI-2060 and 1/3 the mass. The unit shown is designed to handle 10 Watts CW with specs of 14.0 dB minimum isolation (15.0 dB typical),1.50:1 maximum VSWR (1.43:1 typical) and 1.0 dB maximum insertion loss (0.6 dB typical) over a temperature range of -20 to +65c C. Approximate dimensions of the units excluding the load and connectors are 1.00" x 1.00" x 0.50" with amass of 37 grams. The SMS2060 is the highest performance isolator of its size in the world.

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New Space Qualified High Power TNC Isolators

Quote

Sierra Microwave Technology, a leader in space qualified isolators and circulators, has expanded its product line with the introduction of a line of high powered space qualified isolators with TNC connectors. The unit shown is designed to handle 130 Watts CW (integral load rated at 260 Watts) over the frequency range of 2.4 to 2.6 GHz with typical specs of 23 dB minimum isolation,1.15:1 maximum VSWR and 0.2 maximum insertion loss over a temperature range of -25 to+90° C. Approximate dimensions of the units including the load are 1.25" x2.35" (with mounting flange) x .75". The unit is designed to prevent Multipaction and the Multipaction level of this design is calculated to be in excess of 700W.

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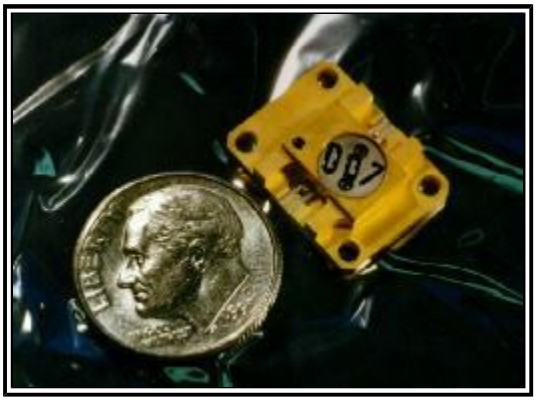
Space Qualified Substrate Interfaced Isolators



Quote

Sierra Microwave Technology, a leader in space qualified isolators and circulators, has expanded its product line with the introduction of a full line of space qualified isolators with Alumina interfaces. The units are available in bands from 9 to 40 GHz with typical specifications of 20 dB min isolation, 0.5 dB max insertion loss, and 1.25:1 max VSWR over a temperature range of -20to+70'C.Typical dimensions of the package are O.5"xO.5"xO.15". Right angle interface versions are also available.

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New High Frequency Switch Products

Quote

Sierra Microwave Technology has expanded its product line with the introduction of a series of high frequency switches. Developed to cover the frequency range of 18 to 40 GHz, standard models include single to five throws. Insertion Loss is 4.5 dB MAX (3.8 dB TYP). VSWR of 2.3:1 MAX (2.0:1 TYP) and isolation of 50 dB MIN(55 dB TYP) are standard. Switching speed is 100 nsec MAX (85 nsec TYP) and the supply current requirement is only +/- 40 mA at +5/-12 volts. Both absorptive and reflective models are available

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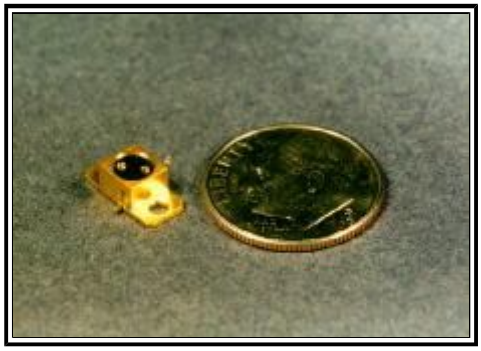
World's Smallest Tabbed Millimeter Wave Isolator



Quote

Sierra Microwave Technology has expanded its product line with the introduction of the world's smallest tabbed millimeter wave Isolator. The isolator's dimensions

are .188"x.188"x.144"(.188"x.410"x.140" for the flanged version as shown). This new micro-miniature package is designed to cover high frequencies between 26 and 40 GHz in 2GHz bandwidths. Insertion loss ranges from 1 dB MAX (.7dB Typ) up to 37 GHz to 1.5 dB MAX(1 dB Typ) above 37 GHz. VSWR of 1.4:1 MAX (1.3:1 Typ) and isolation of 16 dB MIN (18 dB Typ) are standard. The unit is also available as a circulator.

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New Bias Tee Products

Quote

Sierra Microwave Technology has expanded its product line with the introduction of a series of Bias Tees. Developed to cover the frequency range of 0.045 to 26.5 GHz, three standard models include bands 0.045 to 6 GHz, 2 to 18GHz, and 0.1 to 26.5 GHz. Insertion loss for the three models is 1 dB MAX, 0.6 dB MAX and1.3 dB MAX, respectively. VSWR for the three models is 1.4:1, 1.5:1 and 1.6:1. DC current capability for the three models is 2.5 Amps, 1 Amp and 400 mA. In addition to these standard items, narrow band models with enhanced insertion loss and DC current capability can be supplied.

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14-ThrowSwitch Products

Quote

Sierra Microwave Technology has expanded its product line with the introduction of a series of 14-Throw Absorptive Switches, which have been developed to cover a frequency of 0.5 to 18.0 GHz. Insertion loss for the model is 2.6 dB typical at 0.5 GHz, 3.6 dB typical at 8 GHz, 4.5 dB typical at 12 GHz and 6.5 dB typical at 18 GHz. VSWR for the switch is 2.0:1 max on/off and the isolation is 80 dB min (100 dB typical). The switch has a supply voltage of +5 Volts at 220 mA max and -12 Volts at 60

mA max. The switching speed is 1 μ sec. max (600 nsec. typical).

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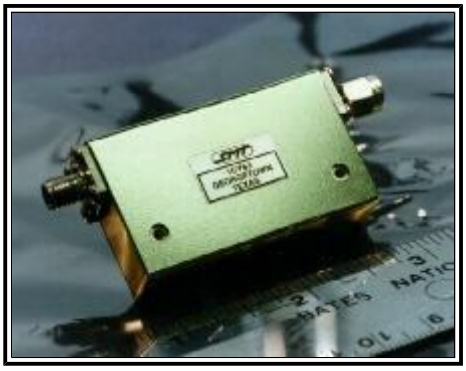
Satellite Tri-Band Isolator SMI-3513



Quote

Sierra Microwave Technology has expanded its product line with the introduction of the world's only 3.5 to 12.8 GHz isolator, part numberSMI-3513. This new isolator is designed to simultaneously cover the three primary satellite bandwidths in this frequency range. Insertion loss for the unit is 2.2 dB Max. The isolator achieves a VSWR of 1.5:1 MAX and an isolation of 17 dB MIN. The Isolator's dimensions are 2.0"x1.0"x.50". The isolator is rated at 5watts CW.

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Waveguide-to-CoaxialAdapter Line

Quote

Sierra Microwave Technology now offers a full line of waveguide-to-coaxial adapters covering the 1.7-40.0 GHz frequency range. Standard models are offered with a wide variety of connectors to satisfy both test (precision) and system applications. All adapters are designed to cover the full frequency range of their waveguide bands with VSWR better than 1.25:1 (options of 1.05 to 18 GHz, 1.10 to 26.5 GHz and 1.15 to 40 GHz). All designs are highly durable and satisfy the toughest mechanical requirements. Most designs provide very low loss (as low as .25 dB up to 15 GHz) and can handle

high power levels.

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