

Winchester Electronics Presents...

Reverse Polarity RF Connectors



RF Connectors designed to meet FCC 15.203 regulations

Winchester Electronics' Reverse Polarity RF connector series is designed to meet the FCC Rule 15.203. FCC regulations state that wireless devices with removable antennas must have a unique coupling design to secure the antenna to a transmitter. To meet this regulation, Winchester Electronics' Reverse Polarity connectors are designed with female contacts in the plug connectors and male contacts in the jack connectors. A full line of connectors is available to utilize a wide variety of cables including RG316, RG58, RG142, LMR100, LMR195, LMR 200 and LMR240.



Electrical

IMPEDANCE:	50 OHMS NOMINAL	
FREQUENCY RANGE:	0 - 18.0 GHz	
VOLTAGE RATING (VRMS)	<u>SEA LEVEL 70K FT</u>	
CONNECTORS FOR RG-196	170	40
CONNECTORS FOR RG-316	250	65
CONNECTORS FOR RG-142	335	85
INSULATION RESISTANCE:	1000 MEGOHMS MINIMUM	
CONTACT RESISTANCE: (MILLIOHMS MAXIMUM)		
	<u>INITIAL</u>	<u>AFTER ENVIRONMENT</u>
CENTER CONTACT:	3.0	4.0
OUTER CONTACT:	2.0	3.0
BRAID TO BODY	0.5	N/A
VOLTAGE STANDING WAVE RATIO:		
	<u>STRAIGHT</u>	<u>RIGHT ANGLE</u>
RG-196 BRAIDED	1.20+ .025F	1.20+ .03F
RG-316 BRAIDED	1.15+ .02F	1.15+ .03F
RG-142 BRAIDED	1.15+ .01F	1.15+ .02F
DIELECTRIC WITHSTANDING VOLTAGE (DWV) AT SEA LEVEL:		
CONNECTORS FOR RG-196	500 VRMS	
CONNECTORS FOR RG-316	750 VRMS	
CONNECTORS FOR RG-142	1000 VRMS	
CORONA LEVEL:	<u>VOLTS @ 70K FEET</u>	
CONNECTORS FOR RG-196	125 MINIMUM	
CONNECTORS FOR RG-316	190 MINIMUM	
CONNECTORS FOR RG-142	250 MINIMUM	
RF HIGH POTENTIAL WITHSTANDING VOLTAGE:		
FREQUENCY:	5 MHz	
LEAKAGE CURRENT:	N/A	
CONNECTORS FOR RG-196	335 VRMS	
CONNECTORS FOR RG-316	500 VRMS	
CONNECTORS FOR RG-142	670 VRMS	
RF LEAKAGE:	-60 dB MINIMUM @ 2-3 GHz	

Mechanical

MATERIALS	
BODY, BODY COMPONENTS:	BRASS PER ASTM B16 1/2 HD
FEMALE CONTACTS:	BERYLLIUM COPPER PER ASTM B196
MALE CONTACTS:	BRASS PER ASTM B16 1/2 HD
INSULATORS:	TEFLON PER ASTM D1710
CRIMP FERRULE:	ANNEALED COPPER ALLOY
GASKETS:	SILICON RUBBER PER ZZ-R-765
FINISH:	
CENTER CONTACT:	GOLD PER MIL-G-45204
OTHER METAL PARTS:	GOLD OR NICKLE PLATED OR TRI-METAL PLATED TO MEET THE FINISH AND CORROSION REQUIREMENTS PER MIL-C-39012

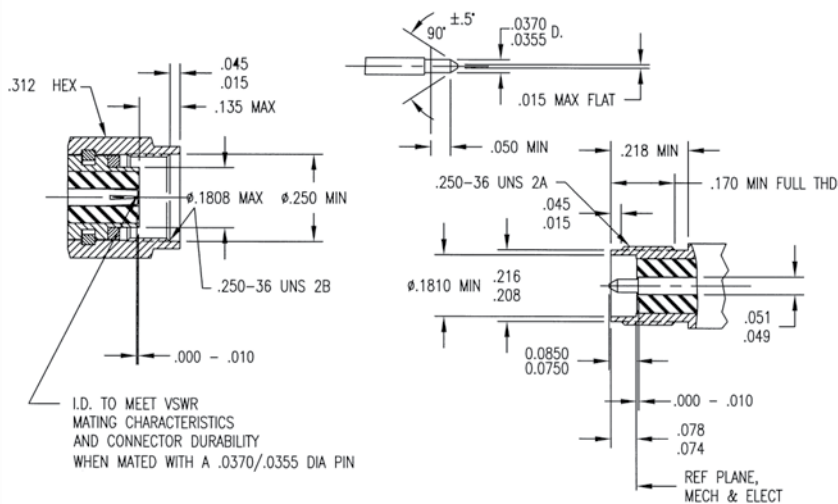
Environmental

OPERATING TEMPERATURE:	-65°C TO +165°C
CORROSION (SALT SPRAY):	MIL-STD-202, METHOD 101, CONDITION B
VIBRATION, HIGH FREQUENCY:	MIL-STD-204, CONDITION D, (20 G's)
SHOCK:	MIL-STD-202, METHOD 204, TEST CONDITION I, (100 G's)
TEMPERATURE CYCLING:	MIL-STD-202, METHOD 102, CONDITION C
MOISTURE RESISTANCE:	MIL-STD-202, METHOD 106

Mating Characteristics

ENGAGEMENT FORCES: TORQUE:	2 INCH-POUNDS MAXIMUM
MATING TORQUE:	7 TO 10 INCH-POUNDS
COUPLING PROOF TORQUE:	15 INCH-POUNDS MINIMUM
COUPLING NUT RETENTION:	60 LBS. MINIMUM

Reverse Polarity Series Per FCC Rule 15.203 Non-Standard Interface



Connecting Innovation to Application®