

# SI-20A

## LOW PASSIVE INTERMODULATION TERMINATION

The SI-20A provides a means of terminating cables and test ports without generating significant levels of intermodulation products.

### FEATURES

- Wide frequency range
- Essential test environment accessory



### TECHNICAL SPECIFICATIONS

SYSTEM	
Frequency range	700MHz - 3600MHz
Characteristic impedance	50ohms nominal
Return loss	16dB minimum
Intermodulation products	-118dBm (maximum, 2 x 43dBm carriers)   -125dBm (typical, 2 x 43dBm carriers)
Power handling	75W average (minimum)
Connector	DIN 7-16 jack
Recommended coupling torque	30Nm (22 foot-pounds)
Maximum coupling torque	50Nm (36 foot-pounds)
MECHANICAL	
Dimensions H x D x W	27 x 177 x 66mm   5 x 7 x 2.6in
Weight	2.7kg   6.0lbs
ENVIRONMENTAL	
Temperature range	0°C to +35°C   +32°F to +95°F (operational)
SUPPLIED ACCESSORIES	
DIN 7-16 plug-to-plug adapter	
Storage case	
ADDITIONAL PRODUCT OPTION	
SI-10A	Includes the SI-20A plus two, 7-16 DIN male to N female adapters

## USING THE SI-20A

The SI-20A is designed to provide a minimum 16dB return loss from 700MHz to 3600MHz. The level of any single IM response generated in the reverse direction from the termination is less than -118dBm when two, 20 Watt carriers are incident upon the termination. Occasionally, the measured IM level from the termination may appear to exceed the -118dBm level. This can occur due to one or more of the following causes:

1.	The connector or device mating to the termination also has an approximate -118dBm IM level. This results in the IM from the termination and the connector adding in-phase to produce a resultant IM level as much as 6dB higher than any one device's individual IM level.
2.	The connector is not torqued properly. This results in partially mated electrical contacts within the connector. The termination's connector is designed for a coupling torque of 30 Newton-meters (approx. 22 foot-pounds). If "O"-rings are installed in the mating connector, or if the mating connector is designed for a higher coupling torque, up to 50 Newton-meters (approx 36 foot-pounds) may be used. Do not exceed this maximum torque as the termination's connector may be damaged.
3.	The connector is contaminated. Ensure that the termination's connector and the mating connector are clean and free of contaminants. Use a lint-free swab and alcohol to clean the interfaces, followed by a blast of clean air.
4.	The connector is excessively worn. After many mate and de-mate cycles, the connector on the termination may become worn. When the silver plating thins, this exposes metals which can produce an IM response.