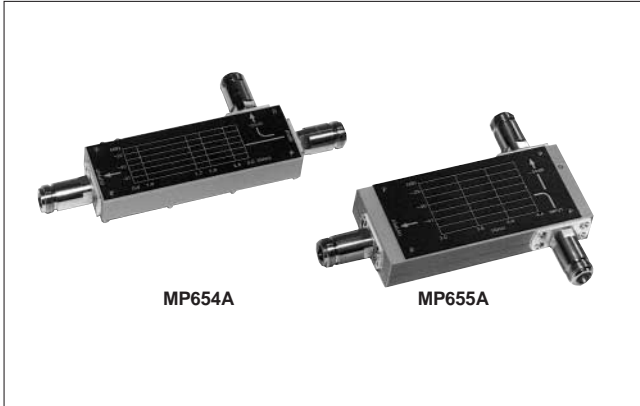


**DIRECTIONAL COUPLER**  
**MP654A, MP655A**  
 0.8 to 3 GHz      3.0 to 4.4 GHz



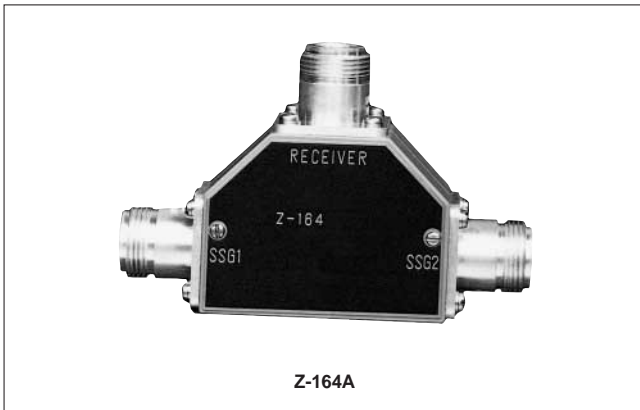
The MP654A and MP655A are used to branch one part of the transmitted output for such measurements as those of fundamental wave and higher harmonic spurious characteristics using a spectrum analyzer. The MP654A is used for measuring personal radio transceivers and automobile telephones while the MP655A is used for measuring microwave band ratio equipment.

**Specifications**

Model	MP654A	MP655A
Frequency range	0.8 to 3 GHz	3 to 4.4 GHz
Impedance	50 Ω (N connector)	
Coupling	Approx. 30 dB*	
Input power (max.)	50W	

\* Calibration data reattached

**T-PAD**  
**Z-164A, Z-164B**  
 DC to 1 GHz      DC to 200 MHz



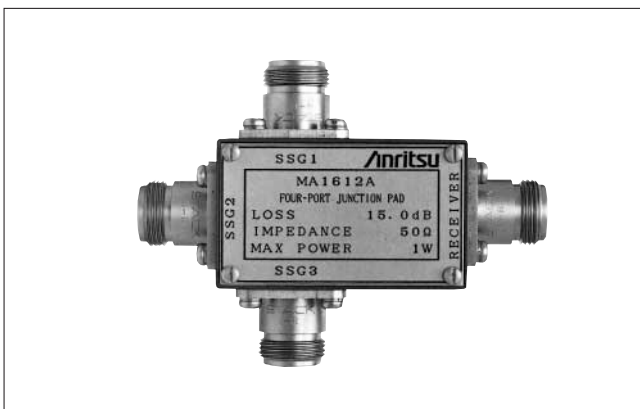
The Z-164A/B is used as a matching pad for applying the mixed output of two signal generators to the input terminal of a receiver for measuring two-signal characteristics (such as the blocking and intermodulation characteristic) of the receiver.

**Specifications**

Model	Z-164A	Z-164B
Frequency range	0 to 1000 MHz	0 to 200 MHz
Insertion loss	6±0.5 dB (voltage ratio)	
Impedance characteristics	50 Ω VSWR: ≤1.3 (up to 500 MHz) ≤1.5 (≥500 MHz)	75 Ω VSWR: ≤1.2 (up to 200 MHz)
Connector	N (S)-J	M-J
Operating temperature	0 to +45°C	

Note: The maximum allowable power is 0.5 W

**FOUR-PORT JUNCTION PAD**  
**MP659A, MA1612A**  
 40 MHz to 1 GHz      5 MHz to 3 GHz



The MP659A and MA1612A are used as an impedance matching box applying the mixed output of three RF signal generators to a receiver input terminal for measurement of three-signal characteristics (such as receiver SINAD performance).