PS-2-2000AF
IN-PHASE
TWO-WAY POWER
COMBINER/DIVIDER
20-2000 MHz

DESCRIPTION

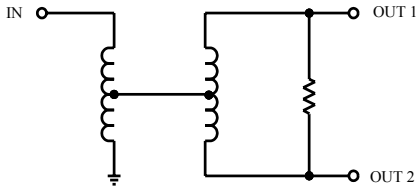
A two-way in-phase hybrid power combiner/divider is a 180° hybrid power combiner/divider with the difference port (A) internally terminated.

As a two-way power divider, a signal fed into the input port yields two in-phase output signals 3 dB down from the input power.

As a two-way power combiner, signals applied to the output ports yield a Vector sum at the input port.

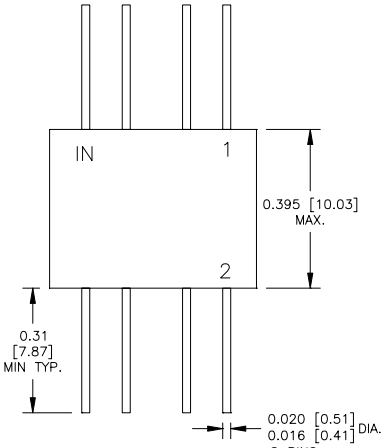
FREQUENCY BANDS IN MHz					
PARAMETER	**20-500**	**500-1000**	**1000-1500**	**1500-2000**	
Input Return Loss (dB min)	17.7	17.7	12.7	12.7	
Output Return Loss (dB min)	17.7	14	12.7	11.7	
Insertion Loss (dB max)	1.0	1.0	1.3	1.8	
Amplitude Imbalance (dB max)	± 0.3	± 0.3	± 0.3	± 0.6	
Phase Imbalance (° max)	± 1	± 2	± 3	± 4	
Isolation (dB min)	25	20	20	15	

FUNCTIONAL SCHEMATIC

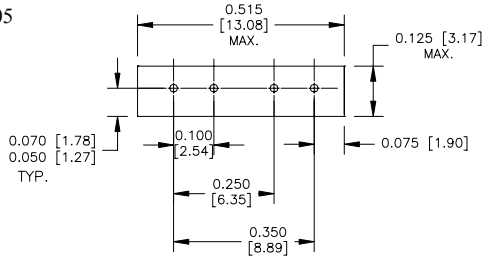


PACKAGE

ALL DIMENSIONS ARE IN INCHES [mm].



TOLERANCES:
.XX=±.01
.XXX=±.005



MATERIAL:

Frame and leads: F15 Kovar per ASTM standard F15-68, (Chemical composition per MIL-STD-1276, Type K).

PLATING (all metal parts): Gold per MIL-G-45204, Type 1, Grade A, Class 1over nickel per MIL-C-26074, Class 1.

ENVIRONMENTAL CONDITIONS

GUARANTEED ENVIRONMENTAL PERFORMANCE:

All units are designed to meet their specifications over –54°C to +100°C after exposure to any or all of the following tests per MIL-STD-202.

Exposure	Method	Test Condition
Thermal Shock	107	B
Altitude	105	G
H.F. Vibratons	204	D
Mechanical Shock	213	C
Random Vibration (15 minutes per axis)	214	IIF
Solderability	208	
Terminal Strength	211	C
Resistance to Soldering Heat	210	B

Sealed units, meet the requirements of Method 106 of MIL-STD-202 when exposed to humidity.

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