

COAXIAL POWER DIVIDERS

TWO-WAY • ISOLATED TAPERED STRIPLINE DESIGN

- Octave, Multi-Octave And Decade Frequency Coverage
- Low Insertion Loss
- Excellent Amplitude And Phase Balance
- High Isolation Between Output Ports
- Low VSWR
- Power: 80 Watts Maximum
- Meets MIL-E-5400 and MIL-E-16400 Environments

New designs include operation through 26 GHz and retain the performance of lower frequency units. These units are ideal for multi-octave ECM systems. These units function as either dividers or combiners to facilitate system performance.

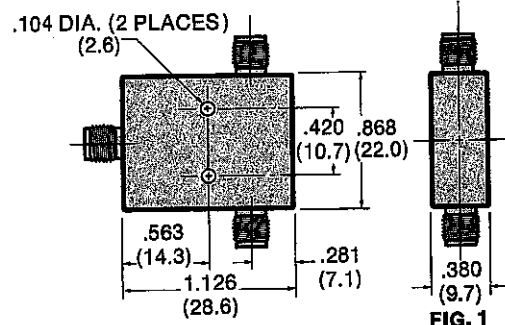


FIG. 1

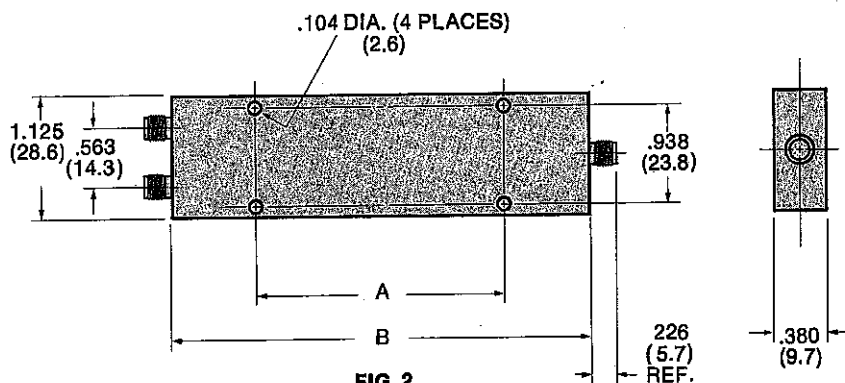
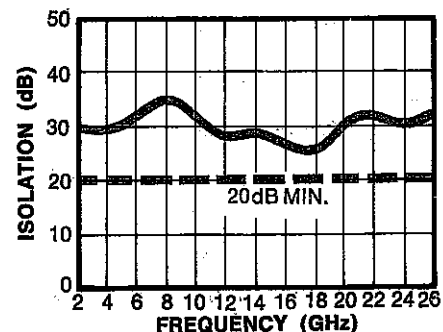
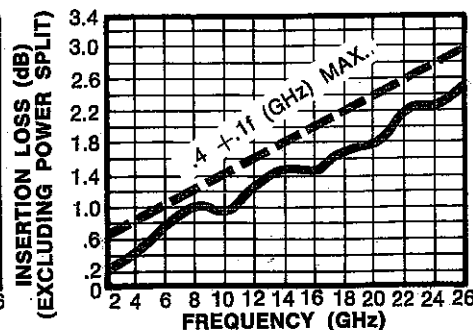
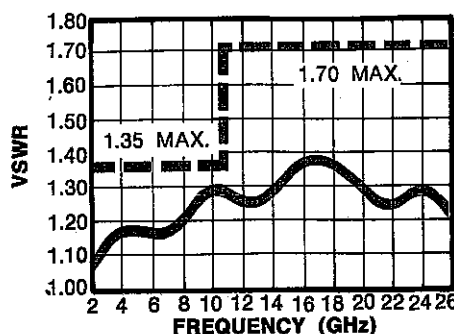


FIG. 2

TYPICAL PERFORMANCE PART NO. 2090-6202-00



SPECIFICATIONS

PART NO.	MODEL NO.	FREQUENCY RANGE (GHz)	VSWR (max.)	ISOLATION dB (min.)	INSERTION LOSS dB (max.)	OUTPUT UNBALANCE AMP. PHASE (dB) (deg.)	MAX. INPUT POWER** (watts)	SIZE, INCHES (mm)	WEIGHT oz. g
2090-6201-00	204928	0.5-26.0	1.35 (0.5 to 11) GHz 1.70 (11 to 26) GHz	20	0.4 + .2f	0.5 5*	80	9.40 (239) 11.02 (291)	2 8.0 226
2090-6202-00	204948	2.0-26.0	1.35 (2 to 11) GHz 1.70 (11 to 26) GHz	20	0.4 + .1f	0.5 5*	40	2.40 (61.1) 4.02 (102)	2 2.9 83
2090-6203-00	204968	8.0-26.0	1.50 (8 to 18) GHz 1.70 (18 to 26) GHz	18	0.4 + .04f	0.5 5*	20	— —	1 1.1 30
2090-6204-00	204927	0.5-18.0	1.35 (0.5 to 11) GHz 1.70 (11 to 18) GHz	20 (0.5 to 3) GHz 23 (3 to 18) GHz	0.2 + .17f	0.3 5	80	9.40 (239) 11.02 (291)	2 8.0 226
2090-6205-00	204947	2.0-18.0	1.35 (2 to 11) GHz 1.70 (11 to 18) GHz	20 (2 to 3) GHz 23 (3 to 18) GHz	0.2 + .07f	0.3 5	40	2.40 (61.1) 4.02 (102)	2 2.9 83
2090-6210-00	204967	8.0-18.0	1.50	18	0.2 + .03f	0.3 5	20	— —	1 1.1 30

*To 18 GHz

**Maximum input power with output loads of VSWR ≤ 2.0:1.
Derate to 10% of listed value when arbitrarily terminated.

Note: f is frequency in GHz.

UHF Hybrid Junction 5 MHz-1 GHz

H-1-4

- Broad Frequency Range
- 0°-180° Hybrid with High Isolation

Guaranteed Specifications*

(From -55°C to +85°C)

Frequency Range	5 MHz-1 GHz
Isolation (A-B Ports)	5-300 MHz 50 dB Min 300 MHz-1 GHz 40 dB Min

Operating Characteristics

Impedance	
A & B Ports	150 Ohms Nominal
C & D Ports	100 Ohms Nominal

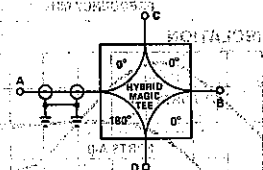
Input Power 7 Watts Max

Phase Shift (A to C or D) Linear with Frequency
(~45° @ 300 MHz)

Environmental
See Appendix for MIL-STD-883 screening option.

*All specifications apply with 50 ohm source and load impedance.
This product contains elements protected by United States Patent Number 3,311,850.

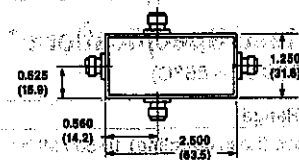
Functional Diagram



Ordering Information

Model No.	Package
H-1-4 BNC	Connectorized
H-1-4 N	Connectorized
H-1-4 SMA	Connectorized

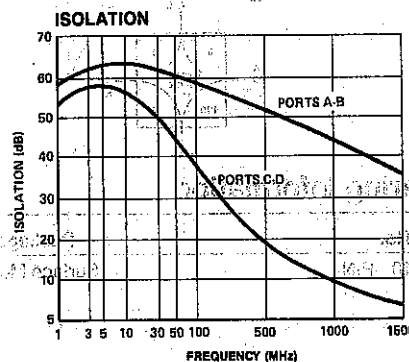
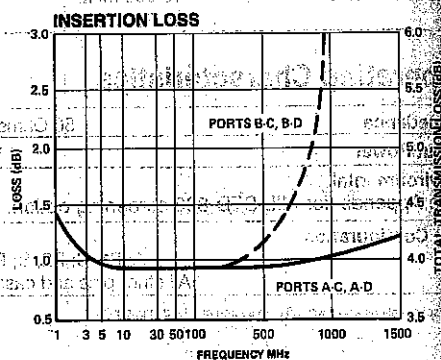
C-33



Dimensions in () are in mm.

See Appendix for complete physical dimensions.

Typical Performance

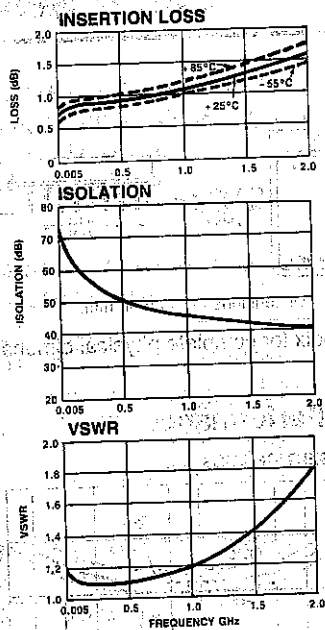


Specifications Subject to Change Without Notice.

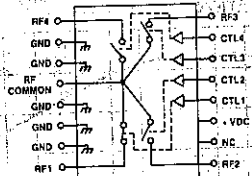
M/A-COM Inc. 1011 Pawtucket Boulevard, Lowell, MA 01853 USA

Telephone: 800-366-2266

Typical Performance



Schematic



Truth Table

Control Input				Condition of Switch			
* = Logic High				RF Common To Each RF Port			
CTL (SW-262) CMOS (SW-265)							
CTL1	CTL2	CTL3	CTL4	RF1	RF2	RF3	RF4
1	0	0	0	ON	OFF	OFF	OFF
0	1	0	0	OFF	ON	OFF	OFF
0	0	1	0	OFF	OFF	ON	OFF
0	0	0	1	OFF	OFF	OFF	ON