

# CR & CRM Series

# DIRECTIONAL COUPLERS

100 kHz to 1000 MHz / Multi-Octave / 10, 15, & 20 dB Coupling / High Directivity / SMA & BNC



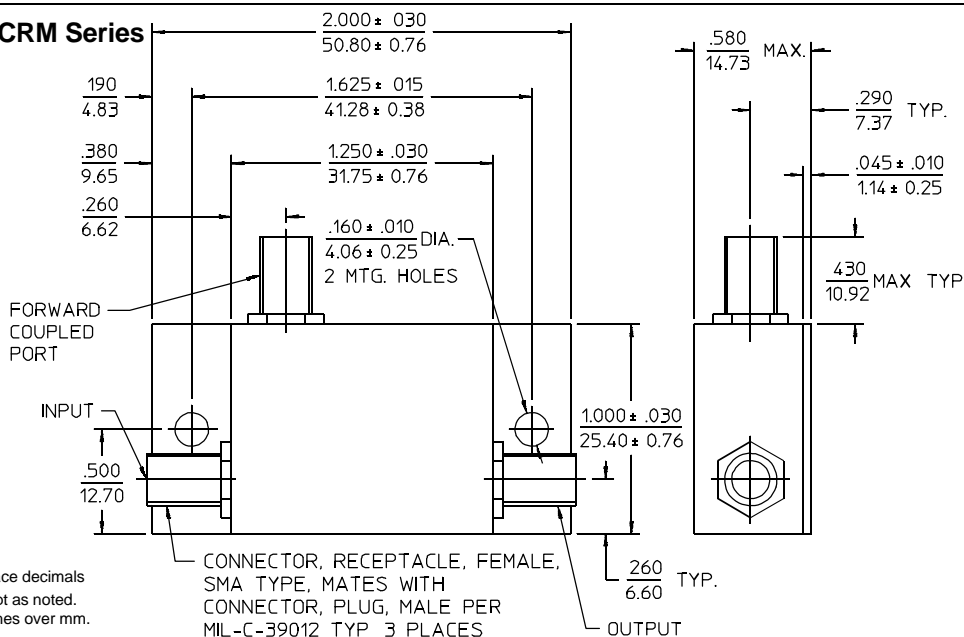
## PRINCIPAL SPECIFICATIONS

Model Number, SMA	Model Number, BNC	Frequency Range, MHz	Operating Bandwidth, MHz	Coupling Tolerance, $\pm$ dB, Max.	Frequency Sensitivity, dB, Max.	Directivity, dB, Min.	Insertion Loss, dB, Max.*	VSWR, Main Arm	VSWR, Cpld. Arm
CRM-10-50	CR-10-50	2 - 100	2 - 100	10 $\pm$ 1.0	$\pm$ 0.5	30	0.5	1.3:1	1.3:1
CRM-10-500	CR-10-500	10 - 1000	10 - 50	10 $\pm$ 1.0	$\pm$ 0.5	20	1.0	1.5:1	1.5:1
			50 - 500	10 $\pm$ 1.0	$\pm$ 0.5	25	1.0	1.3:1	1.3:1
			500 - 1000	10 $\pm$ 1.0	$\pm$ 0.5	20	1.5	1.5:1	1.5:1
CRM-15-50	CR-15-50	2 - 100	2 - 100	15 $\pm$ 1.0	$\pm$ 0.5	30	0.5	1.3:1	1.3:1
CRM-15-500	CR-15-500	5 - 1000	5 - 100	15 $\pm$ 1.0	$\pm$ 0.5	20	0.5	1.3:1	1.3:1
			100 - 500	15 $\pm$ 1.0	$\pm$ 0.75	25	1.0	1.2:1	1.3:1
			500 - 1000	15 $\pm$ 1.0	$\pm$ 0.75	20	1.5	1.3:1	1.5:1
CRM-20-2.5	CR-20-2.5	0.1 - 5	0.1 - 5	20 $\pm$ 1.0	$\pm$ 0.5	30	0.5	1.3:1	1.3:1
CRM-20-50	CR-20-50	2 - 100	2 - 100	20 $\pm$ 1.0	$\pm$ 0.5	30	0.5	1.3:1	1.3:1
CRM-20-500	CR-20-500	10 - 1000	10 - 500	20 $\pm$ 1.0	$\pm$ 0.5	20	1.0	1.3:1	1.3:1
			500 - 1000	20 $\pm$ 1.0	$\pm$ 1.0	15	1.5	1.35:1	1.35:1

$\pm$  Coupling is Referenced to the Input

\* Insertion Loss excludes Coupling loss

### Package Outline - CRM Series



29Feb96

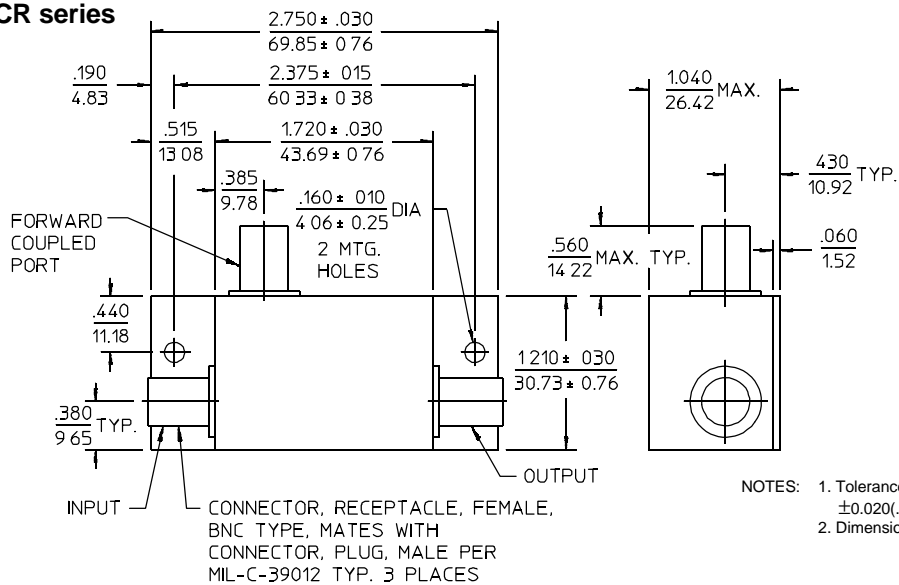
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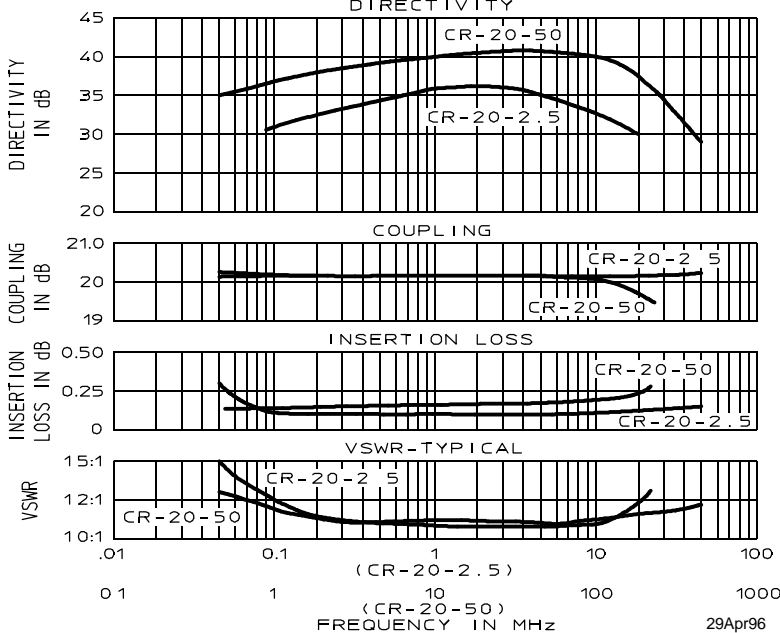
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## Package Outline CR series



## Typical Performance



## GENERAL SPECIFICATIONS

Impedance:	50 Ω nom.
CW Input:	5 Watts max.
Weight: CR Series:	2 oz (56 g) nom.
CRM Series:	1.5 oz (42 g) nom.
Operating Temperature:	-55° to +85°C

### General Notes:

- Merrimac directional couplers are available in a variety of packages to suit most applications such as monitoring of incident and reflected power, signal sampling, control loops and test signal injection devices in BITE.
- The CR/CRM series couplers may be custom ordered with coupling values up to 30 dB and over selected frequency bands up to 1.5 GHz.
- All Merrimac couplers comply with MIL-C-15370 and can be supplied screened for compliance with additional specifications you designate for military and aerospace applications requiring higher reliability.