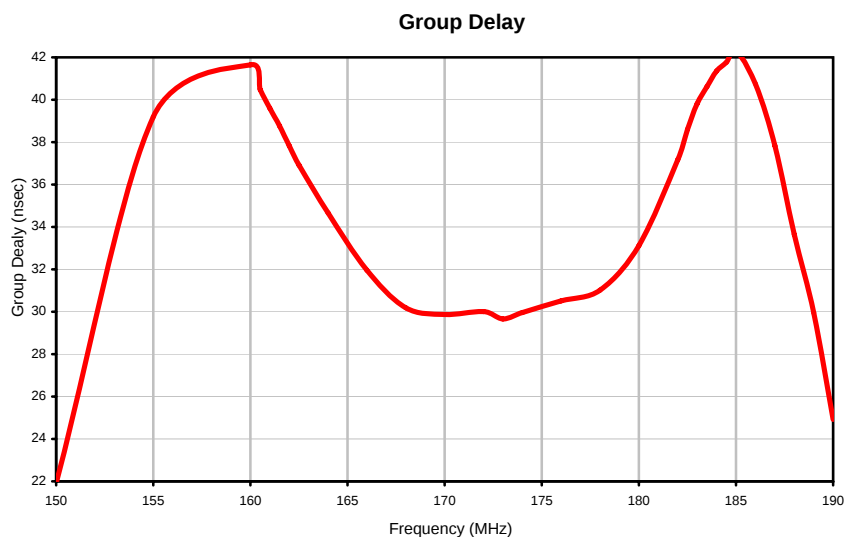
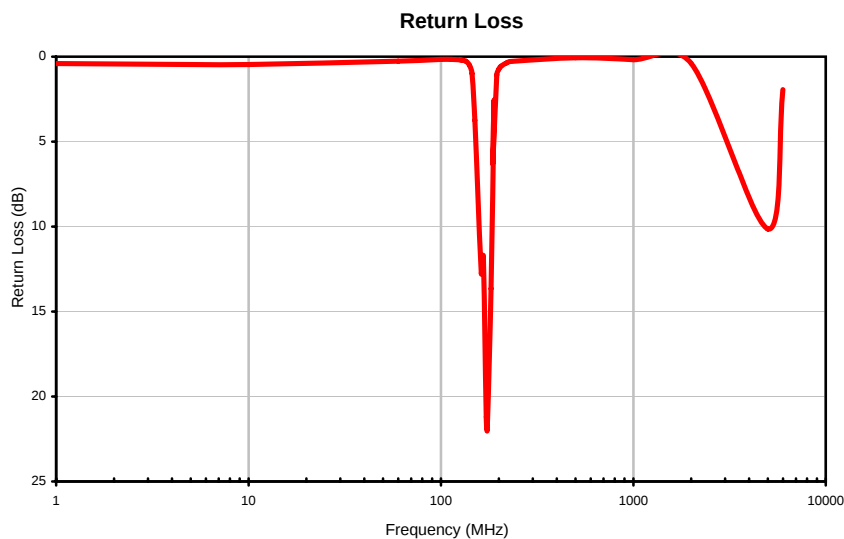


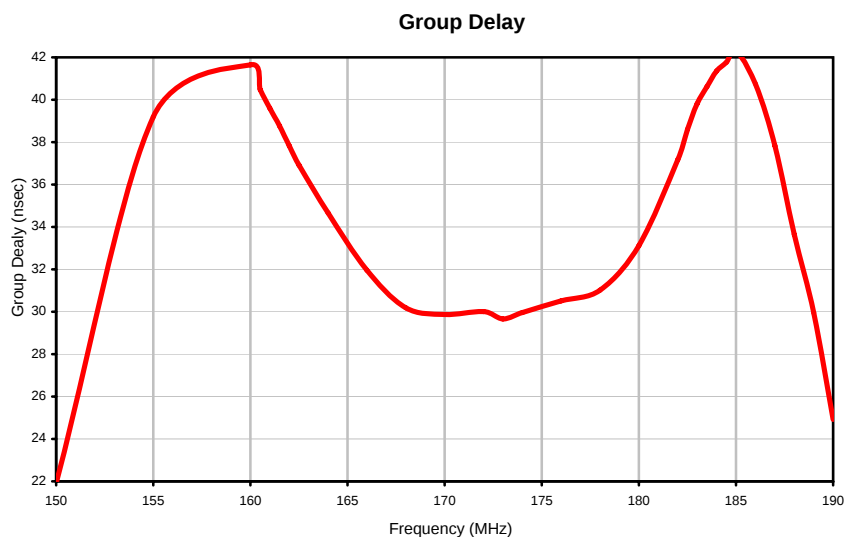
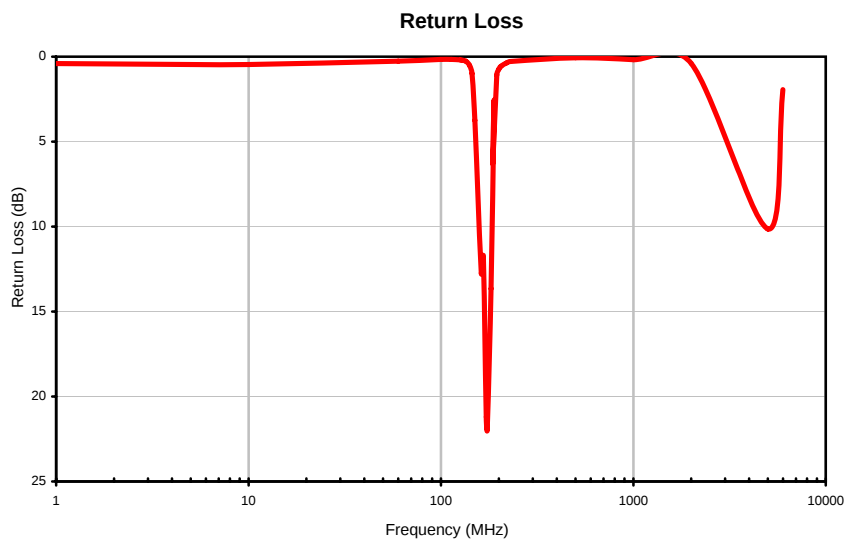
Typical Performance Curves



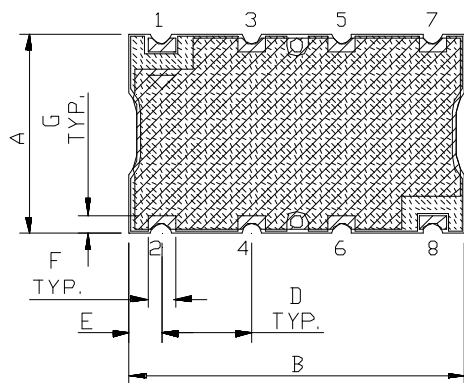
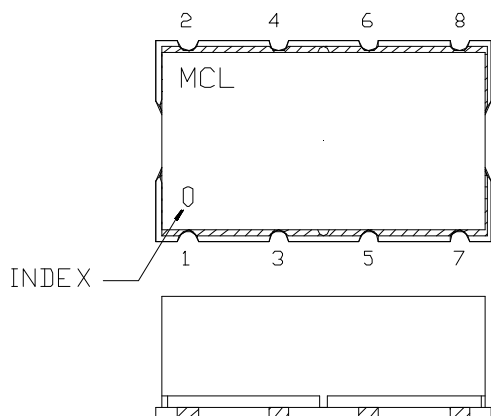
Typical Performance Data

FREQUENCY (MHz)	INSERTION LOSS (dB)	RETURN LOSS (dB)	FREQUENCY (MHz)	GROUP DELAY (nsec)
0.50	67.85	0.40	150.00	21.91
1.00	68.01	0.41	155.00	39.19
5.00	71.26	0.46	160.00	41.65
10.00	73.06	0.46	160.50	40.49
60.00	70.84	0.26	161.00	39.61
100.00	68.97	0.16	161.50	38.77
113.00	60.57	0.16	162.00	37.83
126.00	46.32	0.19	162.50	36.91
130.00	41.72	0.21	164.00	34.65
135.00	35.39	0.27	166.00	31.96
141.00	26.21	0.51	168.00	30.19
145.00	18.98	0.98	170.00	29.88
150.00	8.78	3.74	172.00	30.01
162.00	2.23	12.73	173.00	29.66
166.00	2.21	11.76	174.00	29.96
172.00	2.08	21.20	176.00	30.51
174.00	2.11	21.97	178.00	31.02
182.00	3.16	13.65	180.00	33.11
189.00	10.58	2.73	182.00	37.17
186.00	6.43	6.29	182.50	38.60
195.00	19.30	1.08	183.00	39.81
200.00	25.10	0.74	183.50	40.61
205.00	29.93	0.57	184.00	41.36
220.00	40.63	0.36	184.50	41.76
230.00	45.95	0.28	185.00	42.30
500.00	75.68	0.06	186.00	40.76
1000.00	64.21	0.18	187.00	37.83
2000.00	56.62	0.40	188.00	33.65
5000.00	14.70	10.14	189.00	29.95
6000.00	27.70	1.94	190.00	24.92

Typical Performance Curves

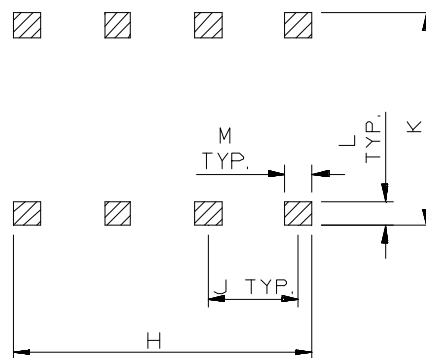


Outline Dimensions



 METALLIZATION
 SOLDER RESIST

PCB Land Pattern



CASE #	A	B	C	D	E	F	G	H	J	K	L	M	WT. GRAMS
HF1139	.44 (11.18)	.74 (18.80)	.27 (6.86)	.200 (5.08)	.07 (1.78)	.060 (1.52)	.040 (1.02)	.660 (16.76)	.200 (5.08)	.470 (11.94)	.055 (1.40)	.060 (1.52)	3.0

Dimensions are in inches (mm). Tolerances: 2 Pl. ± 0.015 "; 3 Pl. ± 0.01 "

Notes:

- Case material: Nickel-Silver alloy.
- Base: Printed wiring laminate.
- Termination finish:
 - For RoHS Case Styles: 2-5 μ inch (.05-.13 microns) Gold over 120-240 μ inch (3.05-6.10 microns) Nickel plate.
 - For RoHS-5 Case Styles: Tin-Lead plate.



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RF/IF MICROWAVE COMPONENTS



Tape & Reel Packaging TR-F5



Tape Width, mm	Device Cavity Pitch, mm	Reel Size, inches	Devices per Reel
32	16	13	500

Mini-Circuits carrier tape materials provide protection from ESD (Electro-Static Discharge) during handling and transportation. Tapes are static dissipative and comply with industry standards EIA-481/EIA-541.

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