

## 1GHz HI-Q DIGITAL SPLITTERS Horizontal Series



**MARATHON** 8, 12 and 16-way drop passives have been engineered for today's interactive broadband systems to ensure quality delivery of both analog and digital signals. They offer the best in class mechanical and consistent RF performance by using Surface Mount Technology (SMT) and strict QC metrics. Your subscribers demand the best; give them Marathon Drop Passives for all their Telephony, Data and High Definition Video applications.

### Features & Benefits

- The right angle Port Design allows for installation in small areas with easy port access and cable management
- Excellent response across 5-1002 MHz spectrum at extreme temperatures
- Advanced 15-42 MHz return path performance with typically better than 35 dB output return loss and port to port isolation
- High grade voltage blocking capacitors on all ports eliminate core saturation and prevent hum modulation
- Low intermodulation circuitry to ensure very low distortions during interactive operation
- Glass PCB microstrip with Surface Mount Technology (SMT) for consistent high RF performance
- RFI shielding better than -120 dB is achieved with solder and a rigid die cast back plate
- Enhanced 180° F-port seizure design maximizes contact surface area and provides 200 gram retention force
- All ports are sealed to prevent moisture ingress up to 15 PSI
- Surge protected to withstand 6 kV Ring Wave on all ports
- Meets or exceeds ANSI/SCTE 153 2008

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## HORIZONTAL SERIES SPECIFICATIONS

Parameter	Frequency	MARS1008H		MARS1012H		MARS1016H	
	(MHz)	Typ	QA	Typ	QA	Typ	QA
Insertion Loss Maximum (dB)	5 - 15	10.8	11.0	13.5	13.7	13.5	13.7
	15 - 42	10.8	11.0	13.5	13.7	13.5	13.7
	50 - 550	11.0	11.2	14.6	15.8	14.5	14.7
	550 - 870	11.6	12.0	14.8	15.0	14.7	14.9
	870 - 1002	12.0	12.5	15.5	15.1	15.0	15.2
Return Loss Input Minimum (dB)	5 - 15	25	22	22	20	22	20
	15 - 42	30	22	25	22	25	22
	50 - 550	25	20	20	18	20	18
	550 - 870	25	20	20	18	20	18
	870 - 1002	24	20	20	18	20	18
Return Loss Output Minimum (dB)	5 - 15	23	20	21	18	20	18
	15 - 42	35	28	23	20	21	20
	50 - 550	28	20	22	20	21	20
	550 - 870	25	20	21	18	22	20
	870 - 1002	24	20	19	18	22	20
Port/Port Isolation (Output/Output) Minimum (dB)	5 - 15	28	24	24	22	23	21
	15 - 42	38	32	32	28	30	26
	50 - 550	29	26	28	24	28	24
	550 - 870	27	24	26	24	26	24
	870 - 1002	27	23	25	23	24	23
RFI (dB)	5 - 1002	-130	-120	-130	-120	-130	-120
Impedance	5 - 1002	75 Ohm					
Spurious Signals Including 2nd Harmonics	-45 dBmV after 6 kV ring wave surge. Measuring with a 55 dBmV return input carrier.						
Surge Protection	6 kV Ring Wave per IEEE C62.41-1991 Category A3						
Waterproof test ( Min)	15 PSI						
Operating Temperature	-40°C to +60°C						
Corrosion Resistance	1000 hours of salt spray per ANSI/SCTE 143 2007						