

## 1GHz HI-Q DIGITAL SPLITTERS FLAT-TOP Horizontal Series



**MARATHON** 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. The user friendly, Flat-Top housing allows all input and output cables to be installed from one side making it ideal for subscriber installations in enclosures without compromising minimum bend radii. Your customers demand the best: give them Marathon Drop Passives for all their Telephony, Data and High Definition Video applications.

### Features & Benefits

- The Flat-Top design allows easy installation and cable management in subscriber enclosures and can be used in rack panels in head end applications
- Nickel alloy plated Zinc die cast housing for superior durability in corrosive environments
- 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



Enduring Quality, Exceptional Value

# 1GHz HI-Q DIGITAL SPLITTERS

## FLAT-TOP SERIES SPECIFICATIONS

Parameter	Frequency	MARS1002F		MARS1003F		MARS1003BF		MARS1004F	
	(MHz)	Typ	QA	Typ	QA	Typ	QA	Typ	QA
Insertion Loss Maximum (dB)	5 - 15	3.1	3.2	3.1 / 6.4	3.2 / 6.6	4.9	5.0	6.4	6.7
	15 - 42	3.3	3.4	3.2 / 6.5	3.4 / 6.7	5.0	5.2	6.5	6.7
	50 - 550	3.4	3.6	3.3 / 6.8	3.4 / 7.2	5.1	5.5	6.7	6.9
	550 - 870	3.7	3.9	3.7 / 7.5	3.9 / 7.6	6.0	6.3	7.4	7.6
	870 - 1002	3.9	4.1	3.9 / 7.6	4.1 / 7.9	6.6	6.7	7.6	8.0
Return Loss Input Minimum (dB)	5 - 15	30	26	28	25	35	32	27	26
	15 - 42	30	29	27	25	39	36	35	32
	50 - 550	29	27	25	21	25	20	22	20
	550 - 870	26	24	25	21	24	20	25	22
	870 - 1002	26	21	26	21	23	20	25	21
Return Loss Output Minimum (dB)	5 - 15	33	29	24	22	28	24	27	26
	15 - 42	45	41	42	34	35	30	35	32
	50 - 550	28	24	28	24	26	24	22	20
	550 - 870	25	21	26	23	25	22	25	22
	870 - 1002	26	21	30	22	25	22	26	21
Port/Port Isolation (Output/Output) Minimum (dB)	5 - 15	33	31	34	31	33	30	39	34
	15 - 42	40	37	47	43	42	35	48	44
	50 - 550	29	27	32	30	37	34	30	28
	550 - 870	27	23	34	29	34	25	28	25
	870 - 1002	28	22	34	27	31	25	27	25
RFI (dB)	5 - 1002	-130	-120	-130	-120	-130	-120	-130	-120
Impedance	5 - 1002	75 Ohm							
Spurious Signals Including 2nd Harmonics	-45 dBmV after 6 kV Ring Wave surge measured 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								