

## 1GHz HI-Q DIGITAL SPLITTERS Horizontal Series



**MARATHON** Passives have been engineered and manufactured to provide the highest performance and reliability. They ensure the best quality signal distribution possible for current HDTV, DOCSIS Data, Digital Voice and future interactive Broadband Networks. The Marathon engineering team has a proven 30 year track record in the Broadband Cable industry and offers the best class in mechanical and consistent RF performance with high quality components and strict QC metrics.

They are available in a full line of housing configurations for headend, commercial or subscriber applications. *Your subscribers demand the best ... Install Marathon Drop Passives.*

### Features & Benefits

- Consistent, high RF performance from 5 – 1002 MHz through extreme temperatures
- Enhanced 15 – 42 MHz return path for superior output return loss and port to port isolation performance
- 6 kV ring wave surge protection on all ports
- Ultra linear ferrites prevent inter-modulation where high level return carriers can affect forward path performance
- E180 series Enhanced 180° contacts engineered for maximum conductor contact and superior retention; design allows insertion without marring the center conductor
- High grade voltage blocking capacitors on all ports to eliminate core saturation and prevent hum modulation
- Solid Zinc cast housing with Bright Tin triple plating for durability in harsh environments
- Universal drive Mounting and Ground Port screws packaged with each splitter
- Sealed ports to prevent moisture ingress to 15 PSI
- Meets or exceeds ANSI/SCTE 153 2008 for outdoor use
- MoCA compliant

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## HORIZONTAL SERIES SPECIFICATIONS

Parameter	Frequency	MARS1002H		MARS1003H		MARS1003BH		MARS1004H	
	(MHz)	Typ	QA	Typ	QA	Typ	QA	Typ	QA
Insertion Loss Maximum (dB)	5 - 15	3.1	3.4	3.2 / 6.5	3.5 / 7.0	5.3	5.4	6.6	6.9
	15 - 42	3.3	3.4	3.2 / 6.5	3.5 / 7.0	5.3	5.5	6.6	7.0
	50 - 550	3.3	3.5	3.3 / 6.8	3.4 / 7.2	5.5	5.8	6.8	6.9
	550 - 870	3.6	3.8	3.7 / 7.5	3.9 / 7.6	6.0	6.2	7.3	7.6
	870 - 1002	3.7	4.0	3.7 / 7.5	3.9 / 7.8	6.3	6.7	7.5	7.9
Return Loss Input Minimum (dB)	5 - 15	28	23	28	25	30	24	24	21
	15 - 42	30	27	27	25	32	26	32	24
	50 - 550	29	27	25	21	25	20	25	20
	550 - 870	26	24	25	21	24	20	25	22
	870 - 1002	26	21	26	21	23	20	24	20
Return Loss Output Minimum (dB)	5 - 15	33	29	24	22	26	23	26	21
	15 - 42	45	41	42	34	35	30	38	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	25	21
Port/Port Isolation (Output/Output) Minimum (dB)	5 - 15	32	29	34	30	32	28	33	25
	15 - 42	40	37	44	38	38	33	44	36
	50 - 550	29	27	32	30	37	34	30	26
	550 - 870	27	23	34	29	34	25	28	25
	870 - 1002	28	22	34	27	31	23	28	24
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								