

SGHMQK Series

*Designed
for the
Digital Drop*



1 GHz Hi-Q Digital Splitters

The BGI Hi-Q Series is the ideal splitter for your Digital two-way plans. Designed for the highest performance in systems utilizing Digital IP integration, cable modem and analog services where the highest isolation and RF performance are required. The Hi-Q design features SMT technology combined with high quality ferrites and blocking capacitors on all ports for long term stability in performance. The SGHMQK Horizontal Series is available in 2, 3, 3B, 4 and 4T way horizontal configurations.

Features & Benefits

- 6KV ring wave surge protected to ensure low inter-modulation performance.
- Minimum -45dBmV spurious and harmonics after 5 surges of 6KV ring wave with a +55dBmV return signal. Custom ultra linear manufactured and controlled ferrites prevent inter-modulation where high level return carriers can affect forward path performance.
- Enhanced return path Return loss @ 35dB and Isolation @ 40dB for the highest performance and compatibility of all 2-way digitally modulated networks.
- Flat 1 GHz bandwidth with minimal insertion loss and reliable RF performance.
- High port to port Isolation providing a resilient 1 GHz Digital network.
- Voltage Blocking capacitors on all ports eliminate core saturation from ground loops and prevent hum modulation.
- Enhanced 180 degree Beryllium copper contacts with 24K gold plating for superior contact stability and center conductors range (#18 to #23 gauge). Design allows 4 times more contact surface area.
- SMT PCB component design with Hi-Q components for consistent specifications.
- PCB grounded directly to housing at multiple points for stability and protection.
- SCTE approved ground wire connection for #14-#6 gauge wires.
- SCTE compliant.
- Laminated product label with ports loss clearly indicated, will not fade.

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1 GHz Hi-Q Digital Splitters Specifications

Parameter	Frequency	SGHMQK2		SGHMQK3		SGHMQK3B		SGHMQK4	
	(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 - 1000	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 - 1000	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	30	42	30	35	30	38	30
	50 - 550	28	24	28	24	26	24	22	20
	550 - 870	25	21	26	23	25	22	25	22
	870 - 1000	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 - 1000	28	22	34	27	31	23	28	24
RFI (dB)	5 - 1000	-130	-120	-130	-120	-130.0	-120	-130.0	-120
Impedance	5 - 1000	75 Ohm							
Harmonics	-45dBmV after 6KV ring wave surge. Measuring with a 55dBmV return input carrier.								
Surge Protection	6KV Ring Wave Surge, IEEE C62,41 Cat A3								
Waterproof test (Min)	15 PSI								
Operating Temperature	-40 degrees C to +60 degrees C								
Corrosion Resistance	Meets SCTE/ANSI Specification								