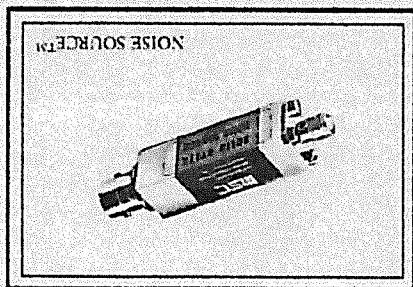
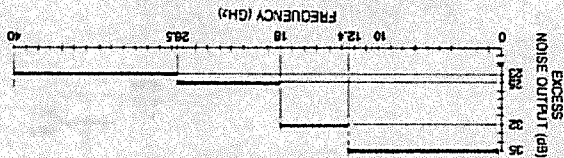


SYSTEM NOISE SOURCES

System Noise Sources are specifically designed for "BITE" applications for monitoring of parameter changes and system performance. ENR outputs of up to 35 dB allow detection of receiver deterioration and developing faults. In addition to the standard product line of system Noise Sources, MSC also designs and manufactures Noise Sources to specification for custom applications.



TYPICAL EXCESS NOISE OUTPUT



COAXIAL NOISE SOURCES (10 TO 18000 MHz)

MODEL NUMBER	TYPICAL SYSTEM APPLICATION	FREQUENCY RANGE (MHz)	ENR	FLATNESS	POWER REQ. MAX.
MC 7001	FM Broadcast	88—108	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7009	Land-Mobile	840—960	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7013	Military Radar	1215—1400	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7016	Telemeiry/Satcom	1480—1720	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7023	Telecom/Telemeiry	2100—2450	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7033	Military Radar	3100—3500	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7040	Satcom/Telecom	3700—4200	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7047	Military Radio	4400—5000	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7062	Terrestrial Microwave	5925—6425	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7077	Terrestrial Microwave	7125—8275	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7090	Military Radar	8325—8675	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7100	Police/Weather Radar	9250—10750	35.0 dB	±0.50 dB	+28V, 10 mA
MC 7165	Radar	14350—16980	32.0 dB	±0.50 dB	+28V, 10 mA

WAVE GUIDE (ISO-ADAPTOR) NOISE SOURCES

MC 7090WI	Radar X Band	8325—9675	35.0 dB	±0.50 dB	+28V, 15 mA
MC 7160WI	Radar Ku Band	14800—17200	32.0 dB	±0.50 dB	+28V, 15 mA

HERMETIC NOISE SOURCES

MC 7090H	Radar X Band	8325—9675	35.0 dB	±0.50 dB	+28V, 15 mA
MC 7146H	Radar Ku Band	13500—15700	30.0 dB	±0.50 dB	+28V, 15 mA

INSTRUMENT NOISE SOURCES

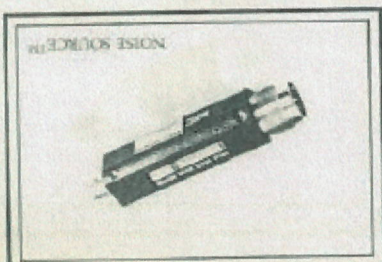
MSC's Solid State Noise Source product line results from the company's advanced microwave power semiconductor technology. The noise sources' hybrid integrated circuit construction yields a mechanical integrity that enables them to withstand the most severe environmental conditions with high reliability and long-term stability. Solid State Noise Sources are available with excess noise ratios of 15.5 dB as direct replacements for gas discharge tube noise sources. Sources with higher level excess noise ratio allow noise to be injected into receiver front-ends via a directional coupler. Signal generator replacement noise sources are available with output levels of -72 dBm/MHz.

Features

- Long term stability
- Extreme temperature stability
- Modest power requirements
- Flat switching capability
- Withstands high incident power
- No damaging spurious leakage
- Wide bandwidth

Calibration Procedure

When an MSC Solid State Noise Source is purchased, calibration data is supplied on a special calibration card. A copy of this data is kept on file at MSC for every Noise Source manufactured. A year-of warranty confirmation card is supplied should the Noise Source have to be returned to MSC for any reason in the future.



MODEL NUMBER	FREQUENCY RANGE (MHz)	ENR	FLATNESS	POWER REQ. MAX.
MC 200A	10-500	35 dB	±1.50 dB	*24V, 6 mA
MC 201A	10-500	35 dB	±1.50 dB	+12V, 8 mA

WIDEBAND COAXIAL SOURCES (10 TO 18000 MHz)

MC 1000	10-1500	35.0 dB	±0.50 dB	+28V, 10 mA
MC 1100	10-1500	15.5 dB	±0.50 dB	+28V, 10 mA
MC 1040	10-4000	25.5 dB	±0.50 dB	+28V, 15 mA
MC 5112	1000-12400	25.5 dB	±0.50 dB	+28V, 15 mA
MC 5118	1000-18000	25.5 dB	±0.50 dB	+28V, 15 mA
MC 5001B	10-18000	25.5 dB	±0.75 dB	+28V, 15 mA

STANDARD BAND COAXIAL SOURCES (1000 TO 26500 MHz)

MSC 5012	1000-2000	30.0 dB	±0.50 dB	+28V, 15 mA
MC 5004	2000-4000	30.0 dB	±0.50 dB	+28V, 15 mA
MC 5045	4000-8000	30.0 dB	±0.50 dB	+28V, 15 mA
MC 5512	8000-12400	30.0 dB	±0.50 dB	+28V, 15 mA
MC 5121B	12400-18000	28.0 dB	±0.50 dB	+28V, 15 mA
MC 51826	18000-26500	25.5 dB	±0.75 dB	+28V, 15 mA

WAVE GUIDE BAND SOURCE (GAS TUBE REPLACEMENTS) (4000 TO 40000 MHz)

MC 5054W	3950-5850	15.5 dB	±0.50 dB	+28V, 15 mA
MC 5059W	5850-8200	15.5 dB	±0.50 dB	+28V, 15 mA
MC 5012W	8200-12400	15.5 dB	±0.50 dB	+28V, 15 mA
MC 51218W	12400-18000	10.0 dB	±0.50 dB	+28V, 15 mA
MC 51826W	18000-26500	25.0 dB	±2.00 dB	+28V, 20 mA
MC 5254GW	26500-40000	23.0 dB	±3.00 dB	+28V, 20 mA

ADAPTORS (COMMERCIAL NOISE FIGURE METERS)

MC 501A	ADAPTOR FOR HP 340 and HP 342 Series Automatic Noise Figure Meters
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- ENR options available—Option P (15.5 dB ENR), Option PA (15.5 ENR). Not available on Wave Guide types above 18 GHz.
- Example: MC 5001B noise source with 15.5 dB ENR becomes MC 5001BP.
- Units with P or PA options have fixed/variable VSWR of 1.3:1 max.
- Available bias input connectors are: BNC (P), SMA (P), SMB (P), SMC (P), and solder terminals. BNC (P) is standard.