

Model 1555G7, M1 through M3 15 Watts CW 5.0-7.0 GHz

The Model 15S5G7 is a solid state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth and high gain are required. Housed in a stylish contemporary cabinet, the unit is designed for bench top use, but can be removed from the cabinet for immediate equipment rack mounting. The 15S5G7, when used with a sweep generator, will provide a minimum of 15 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 15S5G7 is protected from RF input overdrive by an RF input leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above 0 dBm. The RF amplifier stages are protected from over temperature by removing the DC voltage to them if an over temperature condition occurs due to cooling blockage or fan failure. There is a digital display on the front panel to indicate the operate status and fault conditions when an overtemperature or power supply fault has occurred. The unit can be returned to operate when the condition has been cleared. The 15S5G7 includes digital controls for both local and remote control of the amplifier. This 8-bit RISC microprocessor controlled board provides both IEEE-488 (GPIB) and asynchronous, full duplex RS-232 control of all amplifier functions.



6 FREQUENCY (GHz) 7

15S5G7 TYPICAL POWER OUTPUT

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SPECIFICATIONS

POWER OUTPUT @ 3dB COMPRESSION 14 watts Nominal 12 watts POWER OUTPUT @ 1dB COMPRESSION 13 watts Nominal 13 watts Minimum 11 watts FLATNESS ±2.0 dB typical ±3.0 dB maximum 1 FREQUENCY RESPONSE 5.0 - 7.0 GHz instantaneously INPUT FOR RATE OUTPUT 1.0 milliwatt maximum, 0 dBm GAIN (at maximum setting) 40 dB minimum GAIN (at maximum setting) 40 dB minimum INPUT IMPEDANCE 50 ohms, VSWR 2.5:1 maximum OUTPUT IMPEDANCE 50 ohms, nominal MISMATCH TOLERANCE * 100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. MODULATION CAPABILITY Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal HARMONIC DISTORTION Minus 20 dBc maximum at 15 watts THIRD ORDER INTERCEPT POINT 50 dBm typical PRIMARY POWER (selected automatically) 90-132, 180-264 VAC \$00/60 Hz, single phase <300 watts maximum CONNECTORS Type N female REMOTE INTERFACES 24 pin female REMOTE INTERFACES <td< th=""><th>RATED POWER OUTPUT</th><th>15 watt minimum</th></td<>	RATED POWER OUTPUT	15 watt minimum
Nominal 13 watts Minimum 11 watts FLATNESS ±2.0 dB typical ±3.0 dB maximum FREQUENCY RESPONSE 5.0 - 7.0 GHz instantaneously INPUT FOR RATE OUTPUT 1.0 milliwatt maximum, 0 dBm GAIN (at maximum setting) 40 dB minimum GAIN (at maximum setting) 10 dB minimum INPUT IMPEDANCE 50 ohms, VSWR 2.5:1 maximum OUTPUT IMPEDANCE 50 ohms, nominal MISMATCH TOLERANCE * 100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. MODULATION CAPABILITY Will faithfully reproduce AM, FM, or pulse modulation appearing on the input signal HARMONIC DISTORTION Minus 20 dBc maximum at 15 watts THIRD ORDER INTERCEPT POINT 50 dBm typical PRIMARY POWER (selected automatically) 90.132, 180-264 VAC 50/60 Hz, single phase <300 watts maximum	Nominal	
+3.0 dB maximum FREQUENCY RESPONSE	Nominal	
INPUT FOR RATE OUTPUT	FLATNESS	
GAIN (at maximum setting)	FREQUENCY RESPONSE	5.0 – 7.0 GHz instantaneously
GAIN ADJUSTMENT (Continuous Range)	INPUT FOR RATE OUTPUT	1.0 milliwatt maximum, 0 dBm
INPUT IMPEDANCE	GAIN (at maximum setting)	40 dB minimum
OUTPUT IMPEDANCE	GAIN ADJUSTMENT (Continuous Range)	10 dB minimum
MISMATCH TOLERANCE *	INPUT IMPEDANCE	50 ohms, VSWR 2.5:1 maximum
oscillation with any magnitude and phase of source and load impedance. MODULATION CAPABILITYWill faithfully reproduce AM, FM, or pulse modulation appearing on the input signal HARMONIC DISTORTIONMinus 20 dBc maximum at 15 watts THIRD ORDER INTERCEPT POINT		
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THIRD ORDER INTERCEPT POINT		
PRIMARY POWER (selected automatically)90-132, 180-264 VAC 50/60 Hz, single phase <300 watts maximum CONNECTORS RF	MISMATCH TOLERANCE *	
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	MISMATCH TOLERANCE * MODULATION CAPABILITY HARMONIC DISTORTION THIRD ORDER INTERCEPT POINT	

SAFETY INTERLOCK	15 Pin Subminiature D
COOLING	Forced air (self contained fans)

OPTIONAL CONFIGURATIONS

MODEL NUMBER	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
15\$5G7	Type N female on front panel	Type N female on front panel	35.0 kg (77.0 lb)	50.3 x 20.3 x 54.6 cm 19.8 x 8.0 x 15 in
15\$5G7M1	Type N female on rear panel	Type N female on rear panel	35.0 kg (77.0 lb)	50.3 x 20.3 x 54.6 cm
10000////1	Type it female on real panel	Type it lemale of real parter	00.0 kg (77.0 lb)	19.8 x 8.0 x 15 in
15\$5G7M2	Same as 15S5G7 with enclosure removed for rack mounting		25.6 kg (57.0 lb)	48.3 x 17.8 x 54.6 cm
				19.0 x 7.0 x 15 in
15S5G7M3 Same as 15S5G7M1 with enclosure removed for rack mounting		25.6 kg (57.0 lb)	48.3 x 17.8 x 54.6 cm	
				19.0 x 7.0 x 15 in