

Stealth Microwave's **SMTR1720-11G30** is a solid state amplifier designed for use in 802.11a/b/g WLAN systems. This SSPA is primarily used in military applications.

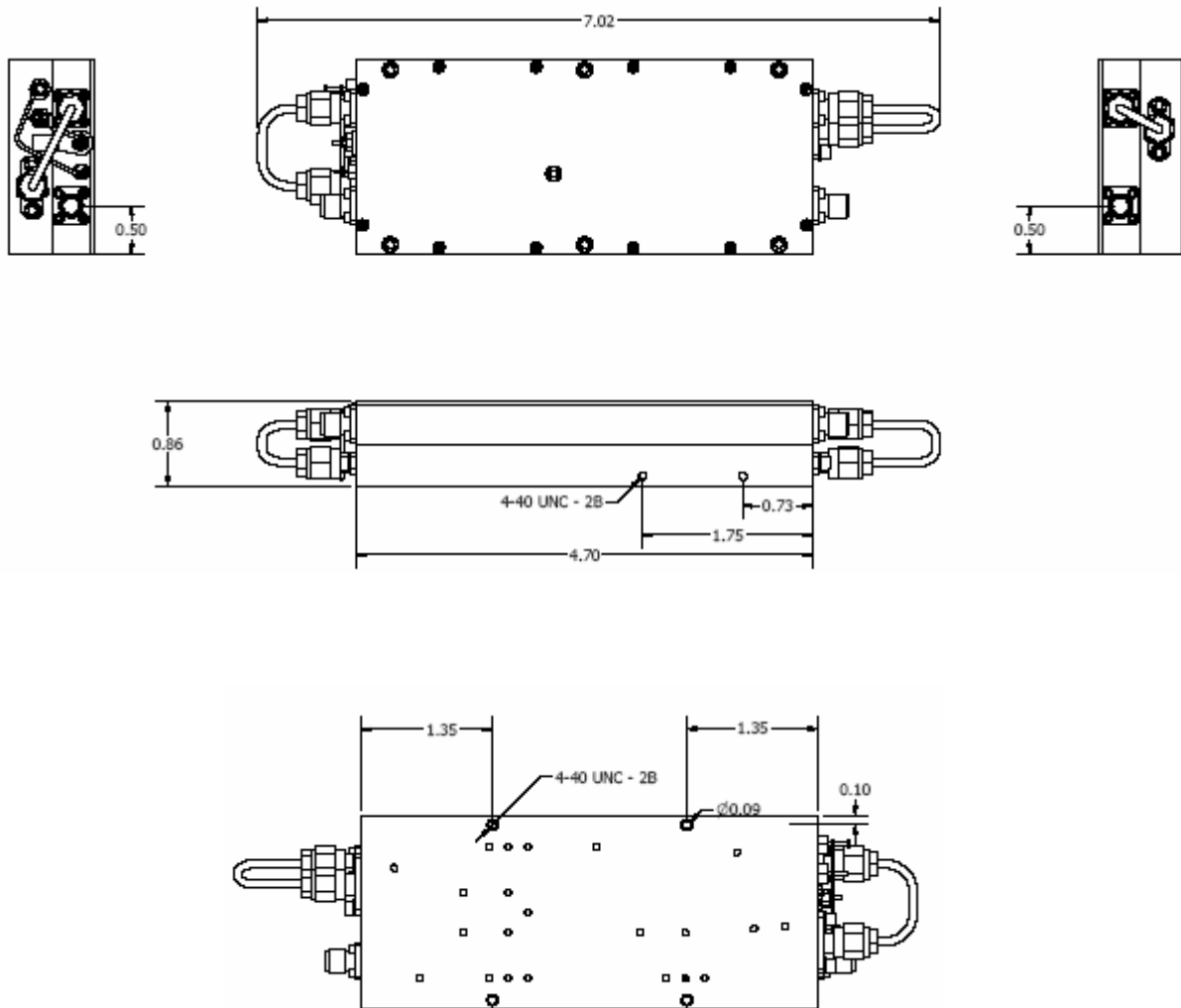
Features

- Automatic Tx/Rx Switching
- Compatible with most military WLAN equipment

Transmit Path	
Parameter	Specification
Frequency Range	1.700-2.000 GHz
Return Loss (Tx Input)	-14dB min
802.11g Compliant Power Out (52Mbps)	+30dBm Avg. -30dB EVM +33dBm Avg. -26 dB EVM
Gain	16 +/- 1 dB +/- .5 dB Flatness
Noise Figure	3dB Typ. 4 dB Max.
DC Input Voltage	+ 12 Volts
DC Input Current (On Transmit)	1.8 A Typ. 2.0 A Max
Receive Path	
Receive Gain	20 +/- 1 dB +/- .5 dB Flatness
DC Input Current (On Recieve)	< 180 mA

Specifications subject to change without notice.

DIMENSIONS IN INCHES



Pin	Description	Values
RF INPUT	Input Connector (SMA Female)	+14 dBm nominal / +23dBm max
RF OUTPUT	Output Connector (SMA Female)	+30 dBm
GND	Ground Turret	---
+12VDC	DC Input Voltage	+ 12 Volts @ 2.0 Amperes (Max.)

TYPICAL EVM PERFORMANCE @ 30dBm 802.11g 54Mbps

IEEE 802.11g					
Frequency:	1.8 GHz	Ref Level:	18.1 dBm	External Att:	24.7 dB
Sweep Mode:	Continuous	Trigger Mode:	Free Run	Trigger Offset:	-10 μ s
Preamble Type:	OFDM	Modulation:	54 Mbps 64 QAM	PSDU Data Length:	1/0

Result Summary						
No. of Bursts	3					*
	Min	Mean	Limit	Max	Limit	Unit
EVM All Carriers	1.32	1.44	5.62	1.50	5.62	%
	- 37.57	- 36.82	- 25.00	- 36.49	- 25.00	dB
EVM Data Carriers	1.31	1.43	5.62	1.49	5.62	%
	- 37.66	- 36.89	- 25.00	- 36.55	- 25.00	dB
EVM Pilot Carriers	1.48	1.57	39.81	1.63	39.81	%
	- 36.60	- 36.09	- 8.00	- 35.75	- 8.00	dB
IQ Offset	- 38.55	- 38.49	- 15.00	- 38.40	- 15.00	dB
Gain Imbalance	0.51	0.54		0.55		%
	0.04	0.05		0.05		dB
Quadrature Error	- 0.02	0.00		0.04		°
Center Frequency Error	134.97	137.06	\pm 45000	138.59	\pm 45000	Hz
Symbol Clock Error	- 0.35	0.54	\pm 25	1.11	\pm 25	ppm
Burst Power	30.32	30.32		30.32		dBm
Crest Factor	8.95	8.96		8.97		dB

Running ...

TYPICAL EVM PERFORMANCE @ 33dBm 802.11g 54Mbps

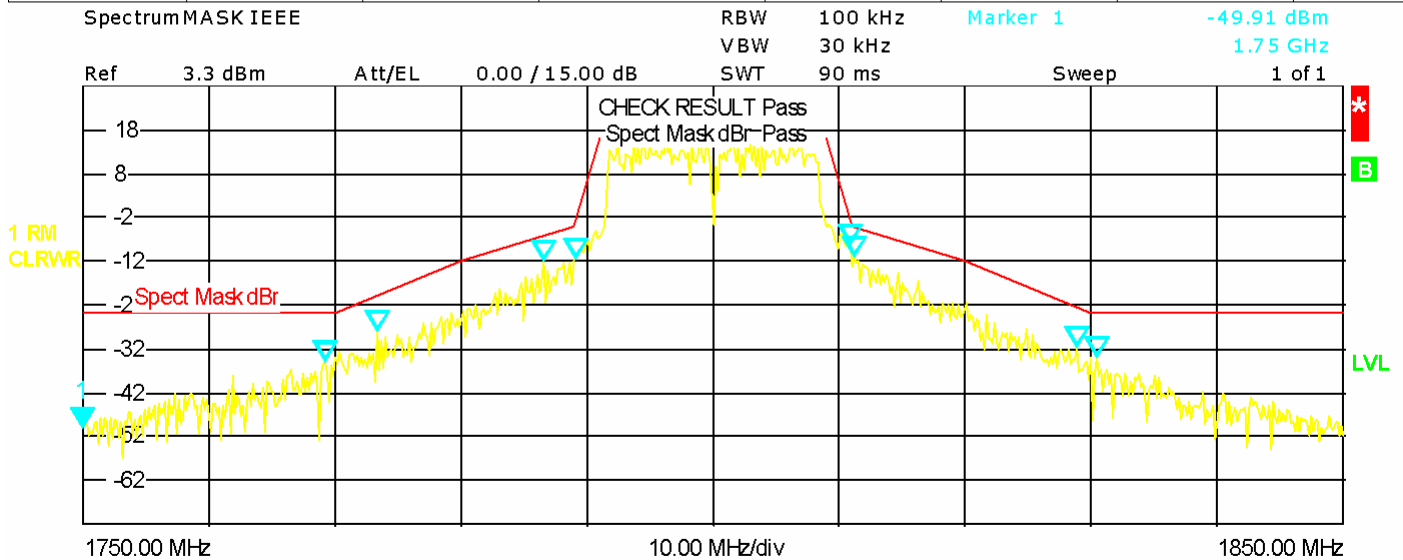
IEEE 802.11g					
Frequency:	1.8 GHz	Ref Level:	16.5 dBm	External Att:	24.7 dB
Sweep Mode:	Continuous	Trigger Mode:	Free Run	Trigger Offset:	-10 μ s
Preamble Type:	O FDM	Modulation:	54 Mbps 64 QAM	PSDU Data Length:	1/0

Result Summary						
No. of Bursts	3					*
	Min	Mean	Limit	Max	Limit	Unit
EVM All Carriers	4.41	4.45	5.62	4.47	5.62	%
	- 27.10	- 27.03	- 25.00	- 26.99	- 25.00	dB
EVM Data Carriers	4.43	4.47	5.62	4.49	5.62	%
	- 27.06	- 26.99	- 25.00	- 26.96	- 25.00	dB
EVM Pilot Carriers	4.18	4.22	39.81	4.24	39.81	%
	- 27.58	- 27.50	- 8.00	- 27.46	- 8.00	dB
IQ Offset	- 38.46	- 38.43	- 15.00	- 38.40	- 15.00	dB
Gain Imbalance	0.42	0.43		0.43		%
	0.04	0.04		0.04		dB
Quadrature Error	0.05	0.07		0.08		°
Center Frequency Error	140.94	144.13	\pm 45000	146.85	\pm 45000	Hz
Symbol Clock Error	0.80	1.33	\pm 25	1.92	\pm 25	ppm
Burst Power	33.27	33.27		33.28		dBm
Crest Factor	6.87	6.87		6.88		dB

Running ...

TYPICAL ACP PERFORMANCE @ 33dBm 802.11g 54Mbps

IEEE 802.11g							
Frequency:	1.8 GHz	Ref Level:	3.3 dBm	External Att:	24.7 dB		
Sweep Mode:	Continuous	Trigger Mode:	Free Run	Trigger Offset:	-10 μ s		
Preamble Type:	OFDM	Modulation:	54 Mbps 64 QAM	PSDU Data Length:	1/0		
Spectrum Emission Mask							
Tx Channel:	Bandwidth	18 MHz	Power	15.96 dBm			
Start Freq. rel.	Stop Freq. rel.	RBW	Freq. at Delta to Limit	Pwr Abs.	Pwr Rel.	Delta to Limit	
-50.000 MHz	-30.000 MHz	100 kHz	1.769230770 GHz	-35.06 dBm	-51.02 dB	-11.02 dB	
-30.000 MHz	-20.000 MHz	100 kHz	1.773397436 GHz	-28.00 dBm	-43.96 dB	-8.03 dB	
-20.000 MHz	-11.000 MHz	100 kHz	1.786538462 GHz	-11.75 dBm	-27.70 dB	-5.52 dB	
-11.000 MHz	-9.000 MHz	100 kHz	1.789102564 GHz	-11.43 dBm	-27.39 dB	-8.41 dB	
9.000 MHz	11.000 MHz	100 kHz	1.810897436 GHz	-8.26 dBm	-24.22 dB	-5.24 dB	
11.000 MHz	20.000 MHz	100 kHz	1.811217949 GHz	-11.05 dBm	-27.00 dB	-6.81 dB	
20.000 MHz	30.000 MHz	100 kHz	1.828846154 GHz	-31.46 dBm	-47.41 dB	-8.80 dB	
30.000 MHz	50.000 MHz	100 kHz	1.830448718 GHz	-34.04 dBm	-50.00 dB	-10.00 dB	



Running ...