

## Intelligent SSPA Advantages

Available in three frequency bands: Extended C-band, X-band, and full Ku-band.

NMS-friendly interfaces enable remote management of your earth station RF.

Embedded web pages provide management for small networks using any web browser.

AGC or ALC circuits hold gain or output level constant.

20dB User-adjustable gain in 0.1 dB steps preserves modem dynamic range.

Advanced customer interfaces:

- TCP/IP HTTP with embedded web pages.
- SNMP
- TELNET through TCP/IP
- RS232/485 serial port.
- Handheld terminal

1+1 switching logic and drivers built into the SSPA eliminate expensive external switching controller.



The revolutionary **Terrasat Intelligent SSPA** has advanced features to take your network to new heights.

**Intelligent SSPA** offers significant benefits:

- Low terminal cost
- Simple design and installation
- Superior RF performance
- Simplified 1+1 configuration

New interfaces connect you to the **Intelligent SSPA's** extensive M&C facilities for network management or local access. This powerful new M&C enables:

- **Trouble free commissioning** with easy, point-and-click installation/configuration
- Continuous **verification** of performance with alarm history.
- Simplified **troubleshooting** of terminal faults.

**Intelligent SSPA** comes with a complete set of diagnostic tools including:

- Input voltage and current monitoring
- Transmit input level detector
- Transmit RF output level detector
- Alarm history

Unique in the **Intelligent SSPA** are internal AGC and ALC functions to satisfy demanding applications with stringent specifications.

## Intelligent SSPA Specifications

<b>RF Input/Output</b>		Noise Output	TX Band	RX Band
Frequency range		Ext C-band	-82 dBW/4kHz	-150 dBW/4kHz
Ext C-band	5.850 to 6.650 GHz	X-band	-82 dBW/4kHz	-82 dBW/4kHz w/o RX Reject Filter
X-band	7.900 to 8.400 GHz	Full Ku-band	-83 dBW/4kHz	-150 dBW/4kHz
Full Ku-band	13.75 to 14.50 GHz	Two Tone Intermodulation	-25 dBc max@3dB total BO	
Output Power (P1dB)		AM to PM Conversion	3.0 deg/dB @ rated P1dB	
C-band 100W	50 dBm min	Group Delay/40MHz		
X-band 100W	50 dBm min	Linear	± 0.03 ns/MHz	
Ku-band 70W	48.5 dBm min	Parabolic	± 0.003 ns/MHz <sup>2</sup>	
Saturated output power, nominal		Ripple	1.0 ns p-p	
0.5 dB above P1dB		<b>Power Requirements</b>	100-240 VAC, 47-63 Hz	
Gain, Linear, @ minimum attenuation		Output Power	Consumption	
C-band 100W	71-76 dB	C-band 100W	750W	
X-band 100W	71-76 dB	X-band 100W	800W	
Ku-band 70W	70-75 dB	Ku-band 70W	900W	
Gain Flatness		<b>Monitor and Control</b>		
C-band 100W	Full band	RS232/485		
X-band 100W	3dB p-p max	Handheld Terminal		
X-band 100W	2dB p-p max	TCP / IP, UDP		
Ku-band 70W	3dB p-p max	Telnet, HTTP, SNMP		
Gain Slope		<b>Interfaces</b>		
± 0.5 dB max, 40 MHz		RF input	Type N(f), 50 Ohms	
Gain Stability, over temperature		RF Output, C-band	CPR137G	
Open Loop	3 dB p-p max	RF Output, X-band	CPR112G	
AGC Mode	1 dB p-p max	RF Output, Ku-band	WR75UG cover w/groove	
Output Level Stability, over temperature		Output Sample	Type N(f), 50 Ohms	
ALC Mode	1 dB p-p max	M&C	MS3112E-14-19S	
Gain Control	Typ 20 dB, 0.1 dB steps	AC	Amphenol C016 20C003 100 12	
Input VSWR	1.3:1 max	<b>Environmental</b>		
Output VSWR	1.3:1 max	Cooling	Variable Speed Fans	
Noise Figure		Operating temperature	-40°C to +65°C	
10 dB typ. @ max gain		Storage temperature	-50°C to +85°C	
Max input power w/o damage		Relative humidity	100% condensing	
+ 10 dBm		Altitude	10,000 ft., (3,000m) ASL	
Input Power Detector Range	-25dBm to -5dBm	<b>Mechanical</b>		
Output Power Detector Range	Rated power to -20 dB	Std Package	16.2"(L)x10"(W)x7.6"(H) 32 lbs	
Output Power Sample	-40 dBc	412mm x 254mm x 193mm, 14.5kg.		
Spurious	-65 dBc max @ rated P1dB			
Harmonics	-50 dBc max @ rated P1dB			

Specifications are subject to change without notice



235 Vineyard Court  
Morgan Hill, CA 95037  
Tel. +1 408.782.5911  
Fax: +1 408.782.5912  
www.terrasatinc.com

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