

UNCLASSIFIED
DATASHEET
GENERAL INFORMATION

The SPRS-2731 is the three channel S-Band Receiver Assembly with per channel redundancy for RADAR Systems operating in frequency range 2.7-3.1GHz with conjunction of 25kW S-Band RADAR GaN Transmitter. Each RF channel has very low NF ~1.3dB and capable of measuring the RF power at input and output of receiver during the reception of RF pulse.



The Receiver Assembly includes the following main sub-assembly sections:

- Three independent S-band sub-assembly
- Transmission pass with 25kW circulator sub-assembly
- Receivers Control and Monitoring sub-assembly
- Power supply sub-assembly

Mechanical Specifications

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| • Power supply entry | 3-pin (2 Power + PE) Circular Receptacle |
| • Cooling | Forced air |
| • Operating temperature range | From -5°C to 45°C |
| • Non-operating temperature range | From -30°C to 60°C |
| • RF Input connectors | WR-284 CPRG Flange and 2 N-type females |
| • RF Output connectors for received signals | SMA females |
| • RF Input connector of transmitted signal | WR-284 CPRG Flange |
| • RF Output connector of transmitted signal | WR-284 CPRG Flange |
| • RF BIT test signal connectors | SMA female |
| • Receivers (main/redundant) switch control interface | RS-485 (differential lines) |
| • Receivers (main/redundant) switch control connectors | DB-9 female |
| • Monitoring and control interface | Ethernet (SNMP) / WEB GUI |
| • Monitoring connectors | RJ-45 |
| • Dimensions L x W x H | 600mm x 600mm x 122mm. |
| • Weight | 25 kg |

RF and Electrical Characteristics

Description	Minimum	Typical	Maximum	Unit
• Frequency	2.7		3.1	GHz
• RF inputs level	-110			dBm
• RF Inputs return loss			-18	dB
• RF Output Level of received signals	-90			dBm
• RF Outputs return loss			-18	dB
• Noise Figure (NF) of each RF channel		1.3		dB
• Gain of each RF channel	20			dB
• RF Output Level of transmitted signal		+74 (Peak @10% Duty cycle, 100 µs pulse width)		dB
• Received signal pulse duration		100		µs
• Received signal Duty cycle		10		%
• RF test BIT signal power		-47		dBm ± 3 dB
• Power consumption		80		W
• Main Power Supply (Single Phase AC)	85		264	V

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

Contact Information

DVB-TECH S.R.L.
 Via Dante Alighieri 3/B/C
 20029 Turbigo
 Milan, ITALY

Phone: **+39 0331 929819**
 Fax: **+39 0331 929819**
 E-mail: **sales@dvb-tech.com**
 Web: **www.dvb-tech.com**

