ADVANCED COMMUNICATIONS RESEARCH & DEVELOPMENT

20W, 40W X BAND POWER AMPLIFIERS
ACSSPA-X20W AND ACSSPA-X40W

DESCRIPTION OF THE EQUIPMENT:

The ACSSPA-X solid state power amplifier series has been designed by ACORDE for their use in X band satellite communications systems. The amplifiers has a gain of 60 dB and a output power of 20 and 40W in the P1dB. The equipment has been tried and gauged in the rank of temperature between -30 and 55º C, in order to securing a very good stability of gain with the temperature. The equipments include a function of alarm and stops of feeding in order to protecting to the amplifier of permanent damages when the temperature exceeds the value of 80 ºC. Besides disposes of a contact of rele for the external indication of alarm, and a ON/OFF pin in the connector of data that along with the pin of GND permits each other light and extinguish the amplifier when is convenient.

TECHNICAL SPECIFICATIONS

1. Specifications of the ACSSPA-X series:

Output

- Output frequency:	7,9 – 8,4 GHz
- Output power:	20W (+43dBm) @ 25º C in the P1dB
	40W (+46dBm) @ 25º C in the P1dB
- Output sample:	-40 dBc
- Impedance:	50 Ω
- VSWR:	1.25:1
- Output connector:	SMA(f)

Input

- Input level:	-13 dBm máx.
- Impedance:	50 Ω
- Noise figure:	14 dB máx.
- VSWR:	1,25:1
- Input connector:	N(f)

Gain

- Nominal gain:	20 W → 59 dB ± 1 dB
	40 W → 61 dB ± 1 dB
- Gain ripple:	± 1 dB on the complete band
	± 0.25 dB on 40 MHz
- Stability with the temperature:	± 0.5 dB in 10º C to 40 ºC
	± 1.2 dB in -30º C to +55ºC

- Carrier to intermodulation ratio:	-25 dBc → two tones (Δf =5MHz, BO=7dB)
- Spurious:	-60 dBc at Pout = P1dB

2. General specifications:

- Power supply:	+12Vdc
- Power consumption:	20W → 300 W
	40W → 380 W
- Supply connector:	MS-3470W 14-4P
- M&C connector:	MS-3470W 10-6P

3. Environmental specifications:

- Operating temperature:	-30º C to +55º C
- Storage temperature:	-55º C to 85º C
- Relative humidity:	Until the 100%
- Shower:	50 mm/hour

4. Mechanical specifications:

- Length:	460,5 mm
- Width:	104,5 mm
- Heap:	31,8 mm
- Weight:	3 Kg

5. Available options:

- ACORDE S.A. disposes of the possibility of shaping his products to measured according to the necessities of everyone of our clients. For any necessary modification on the previous specifications it contacts with ACORDE.

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