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**950 – 1950 MHz VERY LOW PHASE  
NOISE DOWN-CONVERTER**

- **1 kHz FREQUENCY STEP SIZE**
- **VERY LOW PHASE NOISE, OVERPERFORMS IESS-308**
- **LOW INTERMODULATION DISTORSION**
- **LOW POWER CONSUMPTION**
- **64 PROGRAMMABLE MEMORY**
- **1U HIGH 19" WIDE RACK**

This down converter is intended for use in professional applications such as satellite earth stations. It has extremely low phase noise properties, minimum 35 dB better than the IESS-308 standard, making it possible to receive very weak signals close down to the thermal noise floor. The high frequency resolution of 1 kHz provides easy tuning and signal search.

**Electrical characteristics:**

<b>Input characteristics</b>	
Input Frequency Range	0.95 – 1.95 GHz
Impedance	50 ohm
Return loss	15 dB
Input level	-60 dBm to -20 dBm
Input connector	N female
<b>Output characteristics</b>	
Frequency	70 ± 20 MHz
Impedance	50 ohm (opt. 75 ohm)
Power output (1dB compression)	+10 dBm typical
Output connector	BNC female
<b>Transfer characteristics</b>	
Frequency step	1 kHz
Conversion gain	20 dB, nominal
Gain adjustment	25 dB with 1 dB steps
Gain flatness	±1.5 dB
Noise figure	12 dB max.
Image rejection	>70 dB
KF rejection	>70 dB
Spurious	-65 dBc
signal related	
signal independent	-105 dBm referred to the input
Intermodulation distortion (third order)	-60 dBc min., with two -10 dBm output signals
Group delay	7 nsec @ 40 MHz BW, 3 nsec @ 5 MHz BW
Typical phase noise	-105 dBc @ 1 kHz -115 dBc @ 10 kHz -115 dBc @ 100 kHz
External reference	10 MHz, automatic change-over
Reference input connector	BNC female



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**Electrical characteristics:**

<b>Control</b>	
Local	BCD contact thumbwheel or with keyboard with LCD display
Remote	RS232 or RS485 or RS422
Memory	9, Non Volatile
Input power	230 V AC, 50 Hz or +12 V DC
Operating temperature	-10 to 50 °C

**Outline dimensions (mm):**

