



Alcatel 9774- series 2 Watt Ku-Band Block Upconverter

Product description

Highly integrated cost effective RF transmitter for Satellite Communications.

A single housing comprises a power supply, upconverter, power amplifier, a phase lock oscillator and monitor and control circuitry all implemented in SMT on a single PCB.

Features

- 2 W output power at saturation.
- Single conversion with low phase noise without the need for a DRO.
- ETSI EN 301 428 compliant.
- Continuous on burst mode power control
- Monitoring and control through IFL cable using DisEQc 2.0.

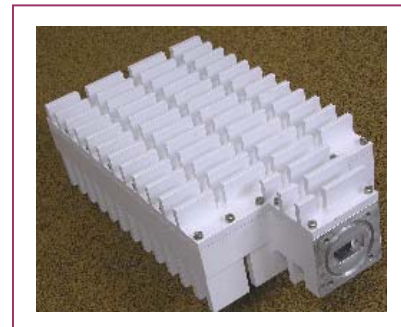
Low power consumption.

Mechanical

- Weight : 1.5 kg max.
- Dimensions : 20cmx11cmx6cm
- Vibration :
 - 5 g (3 axis, 50 Hz to 2 KHz)
 - 1 mmpp (3 axis, 5 to 50 Hz)
- 30 g (3 axis)

Ordering info

A9774-203	14.00 – 14.50 GHz
A9774-214	13.75 – 14.50 GHz



Environmental

- Temperature range :
 - -40 to +60° operating
 - -40 to +75° storage
- Humidity : 0 to 100 %

Altitude : 3000 m

Application

Multimedia VSAT networks and in low to moderate rate MCPC, DAMA and (MF)-TDMA applications.



Ku-BUC Technical specifications

- Input frequency : 950 – 1450 MHz
- Output frequency : 14.00 – 14.50 GHz
Extended bandwidth (Alcatel 9774-214) :
13.75 – 14.50 GHz
- Local oscillator frequency : 13.05 GHz
- LO phase noise :

10 Hz	-22 dBc/Hz
100 Hz	-60 dBc/Hz
1 kHz	-72 dBc/Hz
10 kHz	-76 dBc/Hz
100 kHz	-94 dBc/Hz
> 1 MHz	-109 dBc/Hz
- Input power at P1dB output : -20 dBm
- No damage level : ≥ 0 dBm
- Gain flatness (40 MHz BW) : 1.5 dBpp
- Gain flatness over full 500 MHz band : ± 2.5 dB
- Gain variation due to environment : ± 1 dB
- P1dB : 32 dBm
- Spurious at P1dB : -60 dBc max.
- LO leakage : < -37 dBm
- Harmonics : < -31 dBm
- Spectral regrowth : < -20 dB
- Noise density in 14-14.5 GHz : < -122 dBW/Hz
- IF input interface : 75 Ω , F-type female, VSWR : 2:1
- Supply voltage fed by IFL cable : 15V to 30V
- Power consumption : 18 W max.
- External 10 MHz reference input level via IFL cable : -5 to +5 dBm
- Recommended 10 MHz external reference phase noise :

10 Hz	-105 dBc/Hz
100 Hz	-135 dBc/Hz
1 kHz	-140 dBc/Hz
10 kHz	-150 dBc/Hz
- Output interface : WR75, VSWR < 2:1
- SSPA mute in case of LO unlock
- M&C : subset of full DVB-RCS command set
- Weight : 1.35 kg

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