



Alcatel 9774- series C-Band Block Upconverter

Product description

The Alcatel 9774- series of C Band Block Upconverters are integrated in DVB-RCS systems as part of the RF link in an Outdoor unit.

The Microcontroller based Monitoring and Control provides extended adjustment to cope with variations due to environmental conditions.

The excellent linearity and low spurious behaviour allows safe multicarrier operation and dynamic levelling with adjustable threshold and controlled back-off features are available.

The unit can easily be configured with a Palm handheld or PC / Unix station through the Open standard for M&C (RS232 / RS485.)

An optional Compact Redundancy Switching is available.

- Monitoring and Control includes :
 - Frequency Settings
 - Gain / Attenuation settings
 - Lock Conditions
 - SSPA ON/OFF Status + Control
 - Temperature Monitoring
 - Output Level Detect
 - Power threshold setting

Ordering info

A9774-211	Non-ETSI	Standard C	5 Watt
A9774-212	Non-ETSI	INSAT C band	5 Watt
A9774-215	ETSI	Standard C	5 Watt
A9774-221	Non-ETSI	Standard C	10 Watt
A9774-222	Non-ETSI	NSAT C band	10 Watt
A9774-225	ETSI	Standard C I	10 Watt

Main Characteristics

- 5/10 Watt RF Output Power
- High reliability due to enhanced cooling fin design – no fans required
- High performance is offered with a cost effective conversion scheme.
- Low power consumption

Applications

- Voice, data and digital/analogue video transmissions.
- VSAT applications for Rural Telephony and Air Traffic Control
- Full compliance with international performance specifications like IESS 308, IESS 309 and IESS 310, ETSI EN 301 443





Transmit section

- RF output frequency :
5.850 GHz to 6.725 GHz
6.425 GHz to 7.025 GHz
- IF input frequency : 950 MHz to 1750 MHz
- Input level : -30 dBm for P1dB output
- Gain flatness over ± 40 MHz : ± 1.0 dB
- Gain variation over temp. : ± 1.5 dB max
- Output Power at P1dB :
+40 dBm min. for 10W
+37 dBm min. for 5W
- Output Power adjustment range : 15 dB
- IM3 levels : -39 dBc
(2 carriers, each at 9 dB OPBO)

Spurious outputs

- Meets EN301 443 with 53 dBi antenna gain
- AC line harmonics : -60 dBc
- In-band : -56 dBc¹

Local Oscillators

- LO frequencies : 4900, 4980, 5280 MHz
- Stability : pending on 10 MHz external reference
- 10 MHz external reference level multiplexed on IFL cable : -5 to +5 dBm
- Recommended phase noise of 10 MHz external reference :
100 Hz : -140 dBc/Hz
1 kHz : -150 dBc/Hz
10 kHz : -160 dBc/Hz
100 kHz : -160 dBc/Hz
- LO phase noise superior to IESS-309 : $< 2.8^\circ$ RMS (DSB, 100 Hz to 1 MHz)

1) specified at P1-dB

Environmental

- Weight : 6 kg max for 5W
9 kg max for 10W
- Operating temperature range : -40 to 60°C
- Humidity : Up to 100 %
- MTBF : 100000 hours

Power Requirements

- Input voltages via IFL cable : 42V to 55V DC
- 90V to 260 VAC/47 to 63 Hz as option
- Power consumption : 60 W maximum for 5 W
75 W maximum for 10 W

Interfaces

- IF interfaces : 50 Ω N-type female, VSWR : 1.2:1
- RF output interface : waveguide WR137 VSWR : 1.5:1
- M&C : compatible with MIL-C-26482-I size 14, 19 pins, female

Alcatel Contacts

Alcatel Alenia Space Antwerp N.V.
Berkenrodelei 33
2660 Hoboken
Belgium
Tel : +32 3 829 50 50
Fax : +32 3 829 50 02

For further information, please contact

aasa.info@alcatelaleniaspace.com

www.alcatel.be/space