



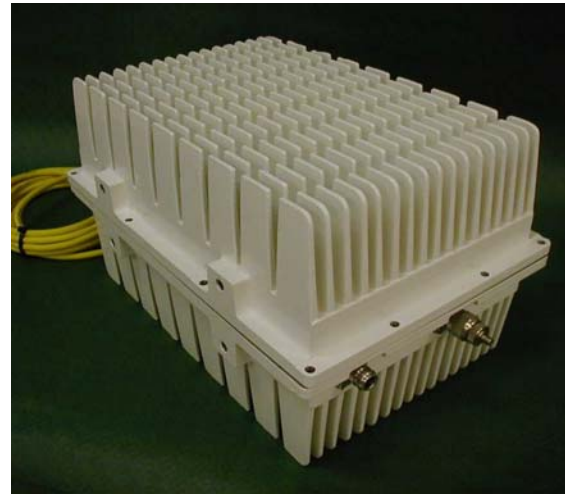
Alcatel 9774- Series 5W C-Band Transceiver

The Alcatel 9774- series of Transceivers operating in the C – communication band offer a dual conversion with a 1 MHz stepsize.

- Microcontroller based Monitoring and Control provides extended adjustment to cope with variations due to environmental conditions.
- Thanks to an increased modularity in the design concept, a high reliability can be reached with low spurious behaviour.
- The excellent linearity and low spurious behaviour allow safe multicarrier operation.
- The unit can easily be configured with a Palm handheld or PC/Unix station.
- Open standard for M&C through RS232 / RS485.
- Compact Redundancy Switching (optional)
- Mounting kit included
- Monitoring and Control includes :
 - Frequency Settings
 - Gain / Attenuation settings
 - Lock Conditions
 - SSPA ON/OFF Status + Control
 - Temperature Monitoring
 - Output Level Detect
 - MO Tuning
 - LNA ON/OFF Status + Control
 - LNA Bias Current Monitoring

Ordering info

A9774-101	IF 70 MHz	48 VDC
A9774-102	IF 140 MHz	48 VDC
A9774-103	IF 70 MHz	90-260 VAC
A9774-104	IF 140 MHz	90-260 VAC

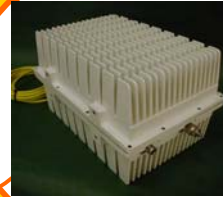


Main Characteristics

- 5 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



Receive section

C band receiver system

RF input frequency : 3.625 to 4.2 GHz
 System Noise temperature : 40K typ

Downconverter

IF output frequency:
 (9774-102/104) 140 MHz ± 36 MHz
 (9774-101/103) 70 MHz ± 18 MHz

Frequency Stepsize : 1 MHz
 Noise figure : 18 dB typical

Gain : 45 dB min
 Gain adjustments range : 25 dB
 (in 1 dB steps)

Gain variation over temp : ±3 dB max
 Gain variation over ±36 MHz : ±1 dB
 Output power at P 1dB : +11 dBm
 3 OIP : +26 dBm

Image rejection : 50 dB
 Carrier related Spurious Outputs: -50 dBc
 Harmonics : -45 dBc max

Transmit section

RF output frequency : 5.85 to 6.425 GHz
 IF input frequency : 70 MHz or 140 MHz

IF Bandwidth : ± 18 MHz (for 70 MHz IF)
 ± 36 MHz (for 140 MHz IF)

Frequency selection stepsize : 1 MHz

Input level : -20 to -5 dBm
 Gain : 60 dB typical
 Gain Flatness over ±36MHz : ±1.0 dB
 Gain variation over temp. : ±1.0 dB max
 Output Power at P 1dB : +37 dBm min

IM3 levels : -39 dBc
 (2 carriers, each at 9 dB OPBO)

Spurious outputs

AC line harmonics : -60 dBc
 Carrier related <500 kHz : -60 dBc
 All other in-band : -56 dBc¹
 Harmonics : -50 dBc

1) specified at P1-dB

Local Oscillators

Stepsize : 1 MHz
 Stability : 0.1 ppm/year typ
 Phase noise :
 100 Hz : -65dBc/Hz
 1 kHz : -80 dBc/Hz
 10 kHz : -80 dBc/Hz
 100 kHz : -95 dBc/Hz
 superior to IESS-309 : <2.8 ° RMS

Environmental

Weight : 19 kg max
 Operating temperature range : -40 to 60 °C
 Humidity : Up to 100%
 MTBF : 100000 hours

Power Requirements

Input voltages:
 (9774-103/104) 90 to 260 V AC / 47 to 63 Hz
 (9774-101/102) 48 V DC
 Power consumption : 85 W
 25 W muted

Interfaces

IF interfaces: 50 Ω N-type female,
 VSWR : 1.2 :1
 RF input interface : 50 Ω N-type female
 VSWR : 1.3 :1
 RF output interface : 50 Ω N-type female
 VSWR : 1.5 :1
 Optional : waveguide WR137
 M&C : compatible with
 MIL-C-26482-I
 size14, 19pins, female

Alcatel Contacts

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*) Specifications subjected to change without notification