

# MULTI CHANNEL ANALOGUE MICROWAVE RADIO LINK -**OUTDOOR VERSION**

Radio Links designed to transfer point to point FM signals; they allow the transmission of one video signal and four audio channels of which communication between of they is managed by microprocessor system that moreover possible alarms units permits a fine positioning of the antennas. Thanks to the reduced dimensions and waterproof configuration of the outdoor unit the system can be used in semifixed and mobile configurations

## two are optional. The system is synthesized at sixteen channels and operates in double conversion in order to obtain RF channel (triple for 23 GHz). The radio link is made of two units; an indoor unit (IDU) supplied in a small rack 19"1U containing mo/demodulator part and an outdoor unit (ODU) in aerial head containing SHF part. The two sections are connected by only a coaxial cable and transfers inherently the outdoor unit to the indoor unit. A small control module (opt.) to be connected to the external

### **Features**

- Mobile version
- **Reduced dimension**
- Double power supply
- Remote control
- Band equalizer
- Sectioning BB-IF outside
- From 2 to 23 GHz
- **Fully syntesized**

## **Applications**

- **Analogue Microwave Links**
- **Backbone Analogue System**
- STL / TSL

...be better connected

Prestazioni della tratta	– Link performances (-40 dBm at receiver input)
Frequency band	2,3 ÷ 2,7 GHz / 5,2 ÷ 5,4 GHz / 5,9 ÷ 6,4 GHz / 6,4 ÷ 7,2 GHz / 7 ÷ 8 GHz /10 ÷ 10,7 GHz 11,7 ÷ 12,4 GHz / 12,1 ÷ 12,5 GHz / 12,7 ÷ 13,3 GHz / 14,25 ÷ 14,5 GHz / 22 ÷ 23,6 GHz
Noise configuration	Better then 5 dB at -40 dBm
Video channel band	From 25 Hz to 5 MHz within 0,5 db
Video channel deflection	8MHz p.p
Differential gain	2%
Differential phase	2 degree
Video emphasis	CCIR 405-1 (disconnectable)
Video interface	1 Vp.p. 75 Ohm with 1.6/5.6 female connector
Audio channel band	80 Hz - 12KHz +/- 0,5 db
Deflection on subcarrier	1 channel 300KHz eff 2 or more 200KHz eff.
Audio subcarriers deflection	70 KHz eff. +9 dBm 600Ohm
Audio subcarriers frequencies*	7020 & 7500 kHz → using EK-DES/1 e EK-MDS/1 8065 & 8590 kHz → using EK-DES/2 e EK-MDS/2 7500 & 8065 kHz → using EK-DES/3 e EK-MDS/3 7500 & 8590 kHz → using EK-DES/4 e EK-MDS/4
Audio emphasis	50μS (disconnectable)
FI band	From 60 to 80 MHz +/- 0,5 dB from 62 to 78 MHz within 3 nS
FI connections	+5 dBm at 75 Ohn with 1.6/5.6 female connectors
Outdoor connections	By coax cable type RG216 (max 100 mt)
ODU output	N type female connector
	"N" female connector (2 GHz band)
	Flange type PDR70 (5,6,7 GHz band)
Output interface	Flange type PDR84 (8 GHz band)
	Flange type UBR120 (10,11,12,13,14 GHz band)
	Flange type PBR220 (23 GHz band)

Freq. band (GHz)	2.3	5.2	5.9	6.4	7.0	8.0	10.0	11.7	12.1	12.7	14.2	22
	2.7	5.4	6.4	7.2	8.0	- 8.5	10.7	12.4	12.5	13.3	14.5	23.6
Output power (dBm) @ 1dB c.p	33	28.5	30.5	30.5	31.5	31.5	31.5	29.5	29.5	29.5	31.5	27

Working climatic conditions				
Normal	$+5^{\circ} \div +40^{\circ} \text{Celsius}$ (IDU) $-20^{\circ} \div +40^{\circ} \text{Celsius}$ (ODU)			
Extreme	$-5^{\circ} \div +45^{\circ}$ Celsius (IDU) $-30^{\circ} \div +50$ Celsius (ODU)			

Power supply					
Transmitter side	$110/220V_{ac}$ +/- $10\%$ 50 Hz 30 W and 24 $V_{dc}-30\%$ +20% (negative not galvanic insulated)				
Receiver side	$110/220V_{ac}$ +/- $10\%$ 50 Hz 30 W and 24 $V_{dc}$ –30% +20% (negative not galvanic insulated)				

	Rack mechanical specifications	Heads mechanical specifications	
Height	44 mm (1U)	Diameter	110 mm
Width	482 mm (19")	Depth	300 mm
Depth	312 mm	Weight	2 Kg

<sup>\*</sup>You can choose audio subcarrier frequencies among the four listed using the indicated internal devices, for further two audio channels another sub rack 19" is necessary (EK-MA/1;EK-DA/1).