

BOARD PLUG-IN EK-UDC/X

"HIGH POWER UP/DOWN-CONVERTER"



The EK-UDC/x (where x is the supported band) is a family of up and down converter boards able to work from C Band up to Ku Band with excellent performances in terms of output power, linearity, sensitivity and spectral purity. The EK-UDC/x boards have been designed in order to guarantee a reliable connection in a point to point radio link and they can operate in indoor environment. The design has been carried out taking in consideration electrical and thermal performances, quality and long term reliability by using first class solid state devices, MLCC and in case of electrolytic capacitors only tantalum type are used, along with a careful choice of the design architecture.

The end user can easily access and monitor the boards through the EK-MFR/x unit. The two conversions of frequency allow the board utilisation with branching filter either band filters, keeping however excellent characteristics of harmonic and clean emission.

It is possible to control the gain of the board related to the power read on further power amplifier, or the detector inside allows to have a constant output power independently from the variation of input power, aspect extremely important in case of constellation that could arrive to 128QAM.

Features

- From 5 GHz to 14 GHz Band
- High Power
- Completely agile (100 KHz step)
- Double conversion
- ALC Function
- Complete web management

Applications

- Digital Microwave Links
- DTV, DVB-T, DVB-S
- Transceiver mode



TECHNICAL SPECIFICATION

Up converter Section

Model (EK-UDC/x)	3	4	5	59	6	7	8	10	11	13	14	15
Freq. band (GHz)	3.6/4.2	4.4/4.9	5.3/5.9	5.9/6.4	6.4/7.2	7.0/8.0	7.7/8.5	10/10.9	10.7/11.7	12.7/13.3	13.7/14.5	14.5/15.25
Saturated output power* (dBm)	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0	39.0
Output power (dBm) QPSK	36.5	36.5	36.5	36.5	36.5	36.5	36.5	35.5	35.5	35.5	35.5	35.5
16QAM	34.5	34.5	34.5	34.5	34.5	34.5	34.5	33.5	33.5	33.5	33.5	33.5
32QAM	34.5	34.5	34.5	34.5	34.5	34.5	34.5	33.5	33.5	33.5	33.5	33.5
64QAM	34.5	34.5	34.5	34.5	34.5	34.5	34.5	33.5	33.5	33.5	33.5	33.5
128QAM	32.5	32.5	32.5	32.5	32.5	32.5	32.5	31.5	31.5	31.5	31.5	31.5
Linear Gain(db)	15 +/- 3	15 +/- 3	15 +/- 3	15 +/- 3	15 +/- 3	15 +/- 3	15 +/- 3	14 +/- 2	14 +/- 2	12 +/- 2	10 +/- 2	10 +/- 2
Monitor port	-30 dB +/- 5 dB											
Power Consumption	60Watt											

* Output power excluding branching filter (necessary)

Down converter Section

Model (EK-UDC/x)	3	4	5	59	6	7	8	10	11	13	14	15
Freq. band (GHz)	3.6/4.2	4.4/4.9	5.3/5.9	5.9/6.4	6.4/7.2	7.0/8.0	7.7/8.5	10/10.9	10.7/11.7	12.7/13.3	13.7/14.5	14.5/15.25
Freq step	100 KHz											
Dynamic range	-20/-100 dBm (bandwidth limited)											
IF Monitor Port	1 internal, 1 rear 0 dBm											

* Noise Figure excluding branching filter (necessary)

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