

5 IN 1 DVB-T/H TRANSMITTER & DUAL CAST AGILE DIGITAL TRANSPOSER



SUITABLE FOR:

- ▶ DVB-T/H DIGITAL TRANSMITTER
- ▶ DVB-T/H DIGITAL TRANSPOSER WITH HIGH ADJACENT CHANNEL SELECTIVITY
- ▶ DVB-T/H DIGITAL GAP FILLER WITH DIGITAL ECHO CANCELLER
- ▶ ANALOGUE TRANSPOSER WITH HIGH ADJACENT CHANNEL SELECTIVITY
- ▶ DVB-T/H REGENERATIVE TRANSPOSER

THE VHF/UHF DUAL CAST AGILE DIGITAL TRANSPOSER/ DIGITAL TRANSMITTER SETS A NEW STANDARDS FOR ATV AND DVB-T/H GAP FILLER AND TRANSPOSER TECHNOLOGY BY COMBINING TOP PERFORMANCE WITH AN EXTENSIVE NUMBER OF FEATURES SECOND TO NONE.

THE EQUIPMENT IS CHARACTERIZED BY THE USE OF AN INTERNAL ADVANCED FPGA DIGITAL BOARD ABLE TO SATISFY ALL FUNCTIONALITY RELATED TO DVB-T NETWORK.

THE DIGITAL ECHO CANCELLER FUNCTION INCREASES THE POTENTIAL OUTPUT POWER OF THE GAP FILLER BY AUTOMATICALLY SUPPRESSING FEEDBACKS FROM THE TRANSMITTING TO THE RECEIVING ANTENNA.

THE ECHO CANCELLER IS FURTHERMORE CAPABLE OF CLEANING UP THE RETRANSMITTED SIGNAL BY SUPPRESSING MULTI PATH CONTENT IN THE PRIMARY INPUT TO THE GAP FILLER.



E50/200-DRU



BY USING THE WEB-INTERFACE MANAGEMENT SYSTEM ALL THE FUNCTIONS CAN BE SET AND MONITORED.

THE RF SIGNAL, COMING FROM THE DIGITAL BOARD, IS BOOSTED BY AN INTERNAL POWER AMPLIFIER SOLID STATE DESIGN FOR OPTIMAL PERFORMANCE IN BOTH DIGITAL AND ANALOGUE BROADCAST APPLICATIONS. THE EQUIPMENTS IS ABLE TO OPERATE IN THE FREQUENCY BAND VHF BAND III AND UHF BAND IV & V. SIZE AND WEIGHT HAVE BEEN REDUCED TO OBTAIN A COMPACT UNIT. THE IMPROVED PERFORMANCE HAS BEEN ACHIEVED BY MEANS OF AN ADVANCED APPROACH IN THE DESIGN, FOCUSING ON LOW POWER CONSUMPTION AND ON EXCELLENT LINEARITY OVER THE ENTIRE OPERATIONAL BAND. HIGH RELIABILITY IS MAINLY GUARANTEED BY USING A LIMITED NUMBER OF TRANSISTORS TO ACHIEVE A GIVEN POWER TARGET AND BY USING OVER DIMENSIONED COOLING DEVICES: BROADCASTERS CAN THUS REDUCE THEIR LONG-TERM SYSTEM COSTS.

CODE	MODEL	DESCRIPTION
6002545538	E5/20-DRU	UHF DVB Agile Transposer 5/20W + In/Out Filter
6002545539	E10/50-DRU	UHF DVB Agile Transposer 10/50W + In/Out Filter
6002545540	E50/200-DRU	UHF DVB Agile Transposer 50/200W + In/Out Filter
6002545542	E125/500-DRU	UHF DVB Agile Transposer 125/500W + In/Out Filter
6002545543	E5/20-DRV	VHF DVB Agile Transposer 5/20W + In/Out Filter
6002545544	E10/50-DRV	VHF DVB Agile Transposer 10/50W + In/Out Filter
6002545545	E50/200-DRV	VHF DVB Agile Transposer 50/200W + In/Out Filter
6002545547	E125/500-DRV	VHF DVB Agile Transposer 125/500W + In/Out Filter
6003545034	E5-DTU	UHF DVB-T/H Agile Transmitter 5W + Out Filter
6003545035	E10-DTU	UHF DVB-T/H Agile Transmitter 10W + Out Filter
6003545036	E50-DTU	UHF DVB-T/H Agile Transmitter 50W + Out Filter
6003545038	E125-DTU	UHF DVB-T/H Agile Transmitter 125W + Out Filter
6003545039	E5-DTV	VHF DVB-T/H Agile Transmitter 5W + Out Filter
6003545040	E10-DTV	VHF DVB-T/H Agile Transmitter 10W + Out Filter
6003545041	E50-DTV	VHF DVB-T/H Agile Transmitter 50W + Out Filter
6003545042	E65-DTV	VHF DVB-T/H Agile Transmitter 65W + Out Filter
6003545043	E125-DTV	VHF DVB-T/H Agile Transmitter 125W + Out Filter

» TECHNICAL DATA »

↳ RF INPUT

Connector	N
Input impedance	50 ohm
Return loss	>16 dB
Frequency range	30MHz -1000MHz
Input level	-77dBm to -7dBm *
Input noise figure	<8dB@max gain (typ. 6.5dB)
Immunity to other channels	adj ch N1 analog signal sync/OFDM >40dB* digital signal OFDM/OFDM >30dB* other ch analog signal sync/OFDM >46dB* digital signal OFDM/OFDM >40dB*
Selectivity	>65 dB attenuation outside ± 4.2 MHz relative to centre frequency **

* Measured as the threshold for QEF reception, mode=8K, 64QAM, CR2/3 (subj. to change)

** Depending on selectivity-filter choice

↳ RF OUTPUT

Frequency Range	VHF Band III and UHF IV&V
Impedance	50 ohm
Class	AB
Output Power	See above specifications chart
Spurious emission	< -60 dBc with ext. output filter
Protections	Overpower, VSWR, Over voltage, Over current, Over temperature
Probe	SMA Female connector RF for forward and reflected power
Gain	up to 40 dB
Load Mismatch	1.8:1 typical

** For GAP-FILLER
Effective output power will depend from antenna separation condition

↳ DIGITAL SPECIFICATION

Synchronism Type	Internal GPS(output with 1PPS and 10Mhz) Input 1PPS and 10Mhz
IF Filter	Digital with three level selectivity
Precorrection	Digital non-linear precorrection by software: curve Vo/Vi e S21, 256 point, gain correction up to +12dB, phase correction -6°+30° Digital linear precorrection by software: amplitude ± 10 dB with 0.01 dB step; group delay ± 1000 ns 1ns step, 21 point 1/20 BW resolution
Echo canceller	The size of the "cancelling window" can be configured to either 7 μ Sec (default) or 14 μ Sec for an 8 MHz system bandwidth.

↳ REMOTE CONTROL

Ethernet WEB Server	LAN RJ45, TCP/IP protocol
SNMP Agent	version 2
RS232/RS485	DB9 male connector
A I/O Parallel Interface	DB25 female connector
Interlock	

↳ RTTE STANDARD COMPLIANCE

Frequency Spectrum	EN 302 296 – EN302 297
EMC	EN 300-489-1 EN 301 489-14
Safety	EN 60950 - EN 60215

↳ TEMPERATURE

Operating range	0° to 45° C (Meets ETS 300 019 requirements)
Storage range	-10° to 80°C
Maximum relative Humidity	90% non condensing
Max Operating Altitude	2500 mt. a.s.l.

↳ SPECIFICATIONS

	E125/500-DRU / DRV	E50/200-DRU / DRV	E10/50-DRU / DRV	E5/20-DRU / DRV
RF output power rms	125W	50W	10W	5W
Output Connector	7/16 f	N f	N f	N f
Dimensions (W x H x D) mm	3U 485X132X720	3U 485X132X720	2U 485X88 X570	2U 485X88 X570
Weight	22	18	16	16
Power consumption @ DVB-T/H	<1.2KVA	400VA	200VA	100VA
Nr. of power supply boards	1	1	1	1
DC Power Supply	230 Vac +/- 10%	230 Vac +/- 10%	230 Vac +/- 10%	230 Vac +/- 10%
Number of fans				