Eurotek
Broadcast Solutions

UNIVERSAL MODULATOR

DVBLock®
GPSBond®

ALL4DIGIT SYSTEM

DVB Digital Video Broadcasting

www.eurotek.eu

MAIN FEATURES

- **Compact size 19" 1U**
- **Frequency AGILE from 30 MHz to 860 MHz 1 Hz steps**
- **Software selectable DVB-T2/T/H, ISDBT/Tb, ATSC or PAL/NTSC**
- **MFN/SFN full compliant with NIT/MIP processing**
- **Excellent MER value: > 40 dB**
- **Integrated GPS Professional Receiver with direct power supply for preamplified antenna and improved filtering**
- **Integrated Adaptive Pre-correction**
- **Full management by SNMP, GSM/GPRS, Web, Telnet and GUI**
- **RMS Detector for additional POWER AMPLIFIER Modules (ALC)**

La piattaforma intelligente ad alta densità "All4Digit"® può essere configurata per funzionare come Modulatore Universale in grado di gestire qualsiasi tipo di modulazione: DVB-T2/T/H, ISDBT/Tb, ATSC o PAL/NTSC anche in versione DUAL CAST (analogico e digitale). Il disegno modulare e l'enorme flessibilità garantita dalla possibilità di inserimento di schede estraibili consentono una configurazione di sistema in grado di accettare qualsiasi tipo di ingresso: ASI, BTS, IP, SMPTE-310, SDI, A/V, SATELLITARE e, caratteristica UNICA AL MONDO, direttamente in PONTE RADIO a microonde.Ulteriore caratteristica rivoluzionaria è quella di poter equipaggiare l'apparato con diverse schede Modulatore e, grazie ad una matrice digitale interna, realizzare sistemi "Dual Drive" o ridondanza N+1 senza la necessità di sistemi di scambio automatico esterni all'apparato.
Grazie all'utilizzo delle tecnologie più innovative il nostro reparto R&D ha sviluppato un modulatore in conversione diretta di frequenza in grado di fornire un'uscita RF da 30÷860 MHz con eccezionali performance di MER e Shoulders che, unitamente a circuiti di pre-correzione adattativi, ricevitore GPS integrato, possibilità di aggiornamento e selezione software sia locale che remota, offrono una flessibilità operativa senza precedenti in grado di soddisfare le esigenze attuali e l'evoluzione dei futuri standard. Il livello di uscita della sola scheda Eccitatore è regolabile da –15 dBm a + 5 dBm in passi da 0.1 dB e può pilotare direttamente uno qualsiasi dei nostri moduli Amplificatori a partire da 4 W (rms) fino a 2,4 KW (rms). Gli apparati della serie "All4Digit"® possono essere equipaggiati da moduli di alimentazione "Hot-Swap" sia AC che DC anche ridondanti e possono essere tutti gestiti sia in locale che da remoto tramite connessioni SNMP, GSM/GPRS, interfaccia Web, Telnet e GUI.

The intelligent platform high density "All4Digit"® can be configured to operate as Universal Modulator that can handle any type of modulation: DVB-T2/T/H, ISDBT/Tb, ATSC or PAL/ NTSC also in DUAL CAST version (Analog and Digital).The modular, state of the art design and huge flexibility, guaranteed by the possibility of inserting removable cards inside the Mainframe allows a system configuration that can accept any type of input: ASI, BTS, IP, SMPTE-310, SDI, A/V, SAT and, feature UNIQUE IN THE WORLD, Microwave RADIO LINKS. Another revolutionary feature of this system is the ability to fit the device with several Modulator boards and, thanks to an internal digital matrix, build a "Dual Drive" or N+1 redundancy systems without external changeover units. Through the use of innovative technologies our R&D department has developed a frequency direct conversion Modulator that can provide an RF output from 30 MHz to 860 MHz with exceptional MER and Shoulders performances which, together adaptive pre-correction circuits, integrated GPS receiver and software upgrade capability, offering unprecedented flexibility to meet current needs and future broadcast standards. The output level of each single Exciter board is adjustable from -10 dBm to +15 dBm in 0.1 dB steps and can directly drive any of our Amplifiers modules from 4 W (rms) up to 2.4 kW (rms).
Every devices of "All4Digit"® series can be equipped with "Hot-Swap" power supply modules both AC and DC also redundant and can be managed either locally or remotely via SNMP, GSM/GPRS, Web interface, Telnet and GUI.

TECHNICAL SPECIFICATION

TRANSPORT STREAM FEATURES	
Inputs	2 SFP + 2 Internal
Input Stream Type	ASI 188 Byte and 204 Byte terminated
Outputs	2 SFP + 2 Internal
ASI Characteristics	1-216 Mbit/s, ISO/IEC 13818-1, EN 50083-9:2002
Internal Data-Rate	1-270 Mbit/s
Redundancy	Input Stream auto switch
MODULATOR FEATURES	
DVB-T	MFN/SFN Bandwidth 6, 7 and 8 MHz MIP functions Seamless input switch (SFN mode)
DVB-T2	DVB-T2 Standard ETSI 302 755 v1.3.1 compliant MFN/SFN (Relative emission time mode) Multi PLP (only T2-MI mode) SISO/MISO Bandwidth 6, 7 and 8 MHz Constellation Rotation Parameters Setting: from T2-MI content fixed (front panel, web SNMP, MST)
ISDB-T/Tb	ARIB STD-B31 compliant MFN/SFN 3 Hierarchical Layers (Layers A-B-C) Fully compliant Broadcast Transport Stream (BTS) standard Selectable input stream format (TS or BTS) 2K, 4K and 8K IFFT processing Bandwidth 6 MHz
ANALOGUE	Standard B,G Modulation C3F neg, F3E Colour System PAL, NTSC Video Interface BNC Female Audio Interface XLR by cable adapter
RF FEATURES	
Frequency	Output range (35|862 MHz) Accuracy 6,5 x 10^-8 without GPS or external 1pps reference Offset step 0.1 Hz
RF Output	-10/+15 dBm (35|862 MHz)
RF Input	-15/+15 dBm (470|862 MHz)
Pre-Correction	Manual (35|862 MHz) Adaptive (470|862 MHz)
CLOCK REFERENCES	
Inputs	1 External Input for GPS signal 2 Internal Input for 1pps Reference signal
Output	1 Internal Output for 1pps Reference signal
GPS Connection	Antenna supply Voltage = 5V Max. allowed current = 50 mA Input impedance = 75 Ohm Connector = F FEMALE
CLIMATIC CONDITIONS	
Temperature	- 5°C/+45°C
Humidity	Max. 90%
Altitude	3000m 66kPa

Specification and characteristics are subject to change without notice

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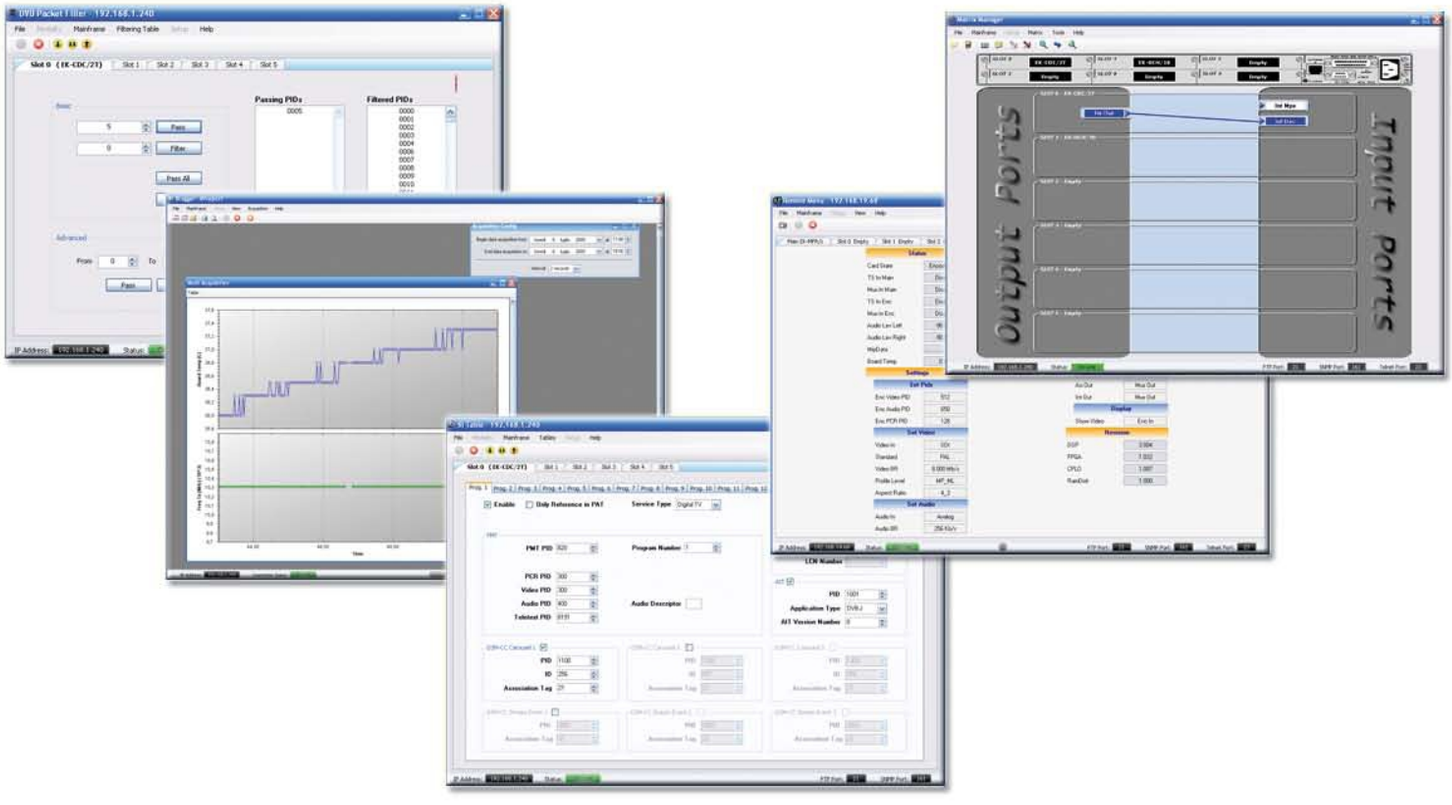
EUROTEK SOFTWARE SUITE



DVBLock®

is our patented anti-theft system that makes the equipment unusable if powered by different signals respect those of Customer

GPSBond®

is our patented anti-theft system that makes the equipment unusable if moved from the position of Customer's installation