



Broadcasting

KRON

Digital TV Transmitters



KRON is the outstanding, latest-generation Neetra multi-standard platform for the transmission of a Digital TV or Digital Radio signal up to a power of 100W RMS in a compact and nice looking equipment.

The **KRON** platform is available in the 100W, 50W, 25W and 5W RMS versions in a compact 2U case or in a solid 3U case when the equipment is requested with the integrated UHF or VHF band-pass output filter.

KRON is conceived to support DVB-T/T2, ATSC, ISDB-T/Tb, DTMB, including the top class, user friendly Linear and Non-Linear Digital Precorrection functionality.

Optionally a high-end Digital Adaptive Predistortion (DAP) engine allows any Digital Transmitter to be operated at its maximum possible power level and, at the same time, widely exceeding the minimum requirements of the official recommendations.

With DAP, the transmitter output is constantly monitored and adjusted to guarantee the maximum coverage in any operating condition. An optional embedded GPS receiver allows perfect SFN operation for the standards supporting single frequency network modes.

Using an optional board, a powerful and appealing Web GUI, together with a robust SNMP control support, allow easy access to the exciter's control system by any wired or wireless network connection and a standard web browser over a PC, laptop, netbook or smartphone.

Main characteristics

- DVB-T/T2, ATSC, ISDB-T/Tb, DTMB
- Digital Precorrector (Linear & Non Linear)
- Top-accuracy SFN Operation
- 100W, 50W, 25W and 5W output powers
- Available in dual mode DVB-T and DVB-T2
- Digital Adaptive Precorrector
- Embedded GPS Receiver
- GbE input for ASI over IP
- SNMP and WEB Server card
- Integrated UHF or VHF Output Band-pass Filter (3U)

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Technical characteristics

SIGNAL PROCESSING SECTION	DVB-T Reference Standard ETSI EN 300 744 v.1.5.1	ATSC ATSC A/53, A/54, A/64	DTMB Gb20600-2006	DVB-T2 ETSI EN 302 755, TS 102 831, TS 102 773 1k, 2k, 4k, 8k, 8kExt, 16k, 16kExt, 32k, 32kExt, System A, System B, Multi-PLP
Modes	2k, 4k, 8k	8-VSB 2/3 Trellis Code	OFDM (4k), Single Carrier	-
Dynamic Reconfiguration Constellation	- QPSK, 16QAM, 64QAM	- 8-VSB	- 4QAM-NR, 4QAM, 16QAM, 32QAM, 64QAM	- QPSK, 16QAM, 64QAM, 256QAM (normal and rotaed)
Code Rates Guard Intervals	1/2, 2/3, 3/4, 5/6, 7/8 1/4, 1/8, 1/16, 1/32	2/3 -	0.4, 0.6, 0.7 1/9, 1/7, 1/4	1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4
Inner Interleaver Network Support Bandwidths Digital Pre-Correction	Native, In-depth MFN and SFN 8MHz, 7MHz, 6MHz, 5MHz Linear and Non-Linear (option: DAP)	MFN 6MHz	Mode2 (240), Mode3 (720) MFN and SFN 6MHz, 7MHz, 8MHz Linear and Non-Linear (option: DAP)	Adjustable Time Interleaving MFN, SFN-SISO, SFN-MISO From 8MHz to 5MHz, 1.7MHz Linear and Non-Linear (option: DAP)
Crest Factor Reduction Automatic PCR Restamping	User Adjustable User Enabled	User Adjustable User Enabled with Bitrate adaptation	User Adjustable	User Adjustable User Enabled
TII Signaling Test Modes	- PRBS, Null Symbol Insertion, Spectrum Hole	23-bit PRBS Generator, Single Tone	PRBS Generator, Single Tone	PRBS, Single-Tone, Spectrum Hole, Null Symbol Insertion
INPUT SECTION	DVB-T 2 ASI (primary and secondary) SPTS/MPTS, Burst Mode, Continuous Mode	ATSC 2 ASI (primary and secondary) SPTS/MPTS, Burst Mode, Continuous Mode	DTMB 2 ASI (primary and secondary) SPTS/MPTS, Burst Mode, Continuous Mode	DVB-T2 2 ASI + 2 GbE (Optional) SPTS/MPTS, Burst Mode & Continuous Mode, IP, RTP, UDP, GGMP V2 & V3
MPEG-2 Packet Length Payload Bit-rate Frequency Reference Input	188/204 bytes Max 31.67Mbit/s 10MHz on BNC, 50 Ohm, -15dBm to +15dBm IPPS on BNC, 5kOhm, TTL 0-5V	188/204 bytes Max 19.392658Mbit/s 10MHz ±5ppm on BNC50 Ohm, 15dBm to +15dBm	188/204 bytes Max 32.49Mbit/s 10MHz ±0.6ppm on BNC, 50 Ohm, 15dBm to +15dBm IPPS on BNC, 5kOhm, TTL 0-5V	188/204 bytes + GSE Max 50.34Mbit/s 10MHz on BNC, 50 Ohm, -15dBm to +15dBm IPPS on BNC, 5kOhm, TTL 0-5V
OUTPUT SECTION	DVB-T UHF and VHF step 1Hz, L-band for dedicated DVB-H networks	ATSC UHF and VHF step 1Hz	DTMB UHF and VHF step 1Hz	DVB-T2 UHF and VHF step 1Hz
Output Level Output Interface Harmonics and Spurious MER L.O. Phase Noise Shoulders	100W, 50W, 25W or 5W N type connector, 50 Ohm < -60dB rel. tot. Pout > 36dB < -95dBc/Hz @10kHz > 40dB non critical mask	100W, 50W, 25W or 5W N type connector, 50 Ohm < -50dBc > 36dB < -106dBc/Hz @20kHz > 47dB FCC Stringent Mask	100W, 50W, 25W or 5W N type connector, 50 Ohm < -60dBc rel. tot. Pout > 36dB < -99dBc/Hz @10kHz > 40dB	100W, 50W, 25W or 5W N type connector, 50 Ohm < -60dBc rel. tot. Pout > 36dB < -95dBc/Hz @10kHz > 40dB non critical mask
GENERAL	Case 19" - 3U/2U - 17kg/14kg (with/without filter) RS232/RS485 (PSTN, GSM, ETHERNET with RCU)			
Physical Standard Remote Control Power Supply Voltage Consumption Operating Temperature	150VA max 0 - 50°C			
GPS RECEIVER OPTION	3.3Vdc 50 Ohm L1 Frequency (1575.42MHz) I2 ±50ns			
SNMP/WEB SERVER CARD	HTTP I.I VI, V2, V3 RJ45 10/100Mbps			

Specifications, characteristics and front panel are subject to change without notice