

EGATEL® RUWH1000 Series

High Efficiency Ultra-Compact UHF Transposer

WHET® Wideband High Efficiency Transmitter

Reliability, quality and efficiency

Extremely easy installation, operation and maintenance



RUWH1000 © 2017 Egatel Spain v.1.4

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The new RUWH1000 High Efficiency Ultracompact (1U) Transposers and Gapfillers family represents a step ahead in the Wideband Doherty solutions, making installation, operation and maintenance easier to broadcasters and offering an unbeatable cost - performance (CAPEX / OPEX) ratio.

The RUWH1000 Series expands the capabilities of Wideband High Efficiency Egatel Transmitters and Transposers, covering any requirement and broadcast network topology and providing an ideal solution for extending digital TV networks.

With output powers up to 125 Wrms, this series has been especially developed for filling in coverage gaps in challenging and space saving situations. A built-in advanced Digital Adaptive Precorrection system makes it possible to automatically deliver the optimal level of correction for the over-the-air signal and a powerful Echo Canceller suppresses installation feedbacks (SFN) in the most challenging echo conditions. Thanks to a friendly Web GUI which enables the complete transposer management in local or remote mode, the tasks of monitoring and maintenance are extremely simple.

- Extremely compact design: up to 125 Wrms in only 1U.
- High Energy Efficiency: Wideband Doherty Technology.
- Multistandard: DVB-T/H/T2, ATSC, ISDB-Tb.
- Digital Adaptive Precorrection.
- Powerful Eco Canceller (SFN).
- Antioscillation system (SAO) with automatic regulation of output power.
- High sensitivity and selectivity.
- Direct digital conversion to baseband (zero IF).
- Friendly WEB GUI (Web Server) providing smart local and remote operation.
- Optional QoS measurement.
- N+1 redundancy ready.
- SD card to save/load whole configuration.
- Remote interfaces: Dry contacts, SNMP, Web Server.
- Remote software update.

TECHNICAL ESPECIFICATIONS

RF Input			
Signal type	One DTV channel		
Frequency band	150-900 MHz (continuous tuning)		
Sensitivity	-80 ... 0 dBm		
Selectivity (Pi = -40 dBm)	> 60 dB		
Noise figure	< 8 dB		
Connector	N (F) 50 ohm		
Return losses	> 18 dB		
Echo canceller			
Cancellation level	> 40 dB		
maximum echo level	+25dBc (over main signal)		
Clock and synchronization			
Internal reference	40 MHz		
External 10 MHz reference	Level: 100 mV - 3 Vpp. Connector: BNC (F)		
RF Output			
Frequency range	470 ... 800 MHz		
Channel bandwidth	6, 7, 8 MHz plus 1.7, 5 and 10 MHz for DVB-T2		
Resolution	1 Hz		
Output power (before the filter)	RUWH1050 (*)	RUWH1200 (*)	RUWH1101
- DVB-T/-H/-T2, ISDB -T/-T _B	5 Wrms	25 Wrms	100 Wrms
- ATSC	5 Wrms	25 Wrms	125 Wrms
Local and remote control			
Display	Local operation through LCD display and keyboard on front panel		
RJ-45	Ethernet network management interface for local and remote operation via SNMP agent /Web Browser		
Parallel interface	Floating contacts for messages and commands		
Digital Adaptive Precorrection (**)			
Non-Linear	Amplitude: ±6 dB / Phase: 60°		
Linear	Amplitude: ±3 dB / Delay: ±500 ns		
Clipping	12 dB		
Operation mode	Continuous / Automatic (triggering: time/shoulder level)		
Monitoring:			
- Shoulder level	Measurement of left and right shoulder level		
- Precorrection status	Running / Stopped		
General			
RF/IF - IF/RF conversion	Direct digital conversion (zero IF)		
Operating temperature	0 ... 45°C		
Relative humidity	95% max. (non-condensing)		
Supply voltage	Single - phase: 100VAC ... 240VAC, 47... 63Hz / 48Vdc		
Dimensions (WxHxD mm)	483 (19") x 44,4 (1U) x 444 mm		
Weight	8 Kg approx.		
Cooling	Forced air		

(*) No Doherty.

(**) Static linear and non-linear precorrection is included as default. Digital Adaptive Precorrection is optional but can be activated at any time through a software key.

Remark: To comply with the out-of-band emissions regulations and with the required shoulder attenuation, the RF output of the transposers must be connected to an appropriate filter.