

# TECHNICAL SPECIFICATIONS

## EXCITER

DVB-T/H/T2	
Standard	EN300744, EN302304, EN302755, TS 102831, TS 102 773 (T2-MI)
Inputs	2xASI BNC (F), 75 ohm / 2xTSolP 10/100/1000 RJ45.
FFT	1K (DVB-T2), 2K, 4K, 8K, 16K (DVB-T2), 32K (DVB-T2)
Code rate	1/2, 2/3, 3/4, 5/6, 3/5 (DVB-T2), 4/5 (DVB-T2)
Guard interval	1/32, 1/16, 1/8, 1/4, 19/256 (DVB-T2), 19/128 (DVB-T2), 1/128 (DVB-T2)
Constellation	QPSK, 16QAM, 64QAM, 256QAM (DVB-T2). Rotated and non rotated (DVB-T2)
ATSC	
Standard	ATSC A/53, A/54, A/64, A/153, A/110B, SMPTE-310M
Inputs	2xSMPTE BNC (F), 75 ohm - 2xASI BNC (F), 75 ohm
Constellation	8VSB
Symbol rate	10.76 Msymbols/s
Data rate	19.39 Mbits/s
Trellis coding	2/3
Reed-Solomon encoder	207 / 187 / 10
ISDB -T/-T <sub>B</sub>	
Standard	ARIB STB-B31, TR-B14
Inputs	2xASI BNC (F), 75 ohm
FFT	2K, 4K, 8K
Code rate	1/2, 2/3, 3/4, 5/6, 7/8
Guard interval	1/4, 1/8, 1/16, 1/32
Carrier spacing	4 KHz, 2 KHz, 1 KHz
Hierarchical modulation	Up to 3 layers
Constellation	QPSK, 16QAM, 64QAM, DQPSK
Clock and synchronization	
Internal clock	10 MHz
External reference	10 MHz BNC (F). Impedance = 50 ohm / high (configurable). Level = -5 to +10 dBm
1pps reference	BNC (F). Impedance = 50 ohm / high (configurable)
SFN	Resolution SFN = ±100 ns. SFN configurable delay = ±500 ms
Local and remote control	
Display	Local operation through the display and keyboard located on the front panel
RJ-45	Remote network management and local operation interface (Web Server and/or SNMP agent)
Parallel interface	Floating contacts for messages and commands

## UHF TRANSMITTER

Digital TV (*)	TLWH7802	TLWH7803	TLWH7804	TLWH7805	TLWH7808	TLWH7816
Output power before the filter: DVB-T/H/T2, ISDB-T/T <sub>B</sub>	1.7 KWrms	2.5 KWrms	3.3 KWrms	4.2 KWrms	6.5 KWrms	12.5 KWrms
Output power before the filter: ATSC	2.5 KWrms	3.7 KWrms	5 KWrms	6.2 KWrms	10 KWrms	19.5 KWrms
Number of amplifiers (**)	2	3	4	5	8	16
Number of racks	1					2
Output RF connector	EIA 1 5/8"		EIA 1 5/8" or 3 1/8"		EIA 3 1/8"	EIA 4 1/2"
General						
Frequency range	UHF: 470 - 800 MHz (resolution: 1 Hz)					
Channel bandwidth	6, 7, 8 MHz plus 1.7, 5 and 10 MHz for DVB-T2   ISDB-T/T <sub>B</sub> , ATSC: 6 MHz					
Cooling	Liquid - cooled					
Power supply	Three - phase: 400VAC +/- 15%, 47 to 63Hz					
Max. installation altitude	Up to 3000 m (> 3000 m on request)					

(\*) The models are referenced according to standard: TLWH78xx - DVB-T/H/T2, TLWH78xxB - ISDB-T/T<sub>B</sub>, TLWH78xxA - ATSC  
Example: TLWH7808B - 6.5 KWrms ISDB-T/T<sub>B</sub>

(\*\*) Other configurations of output power and number of amplifiers, on request.

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