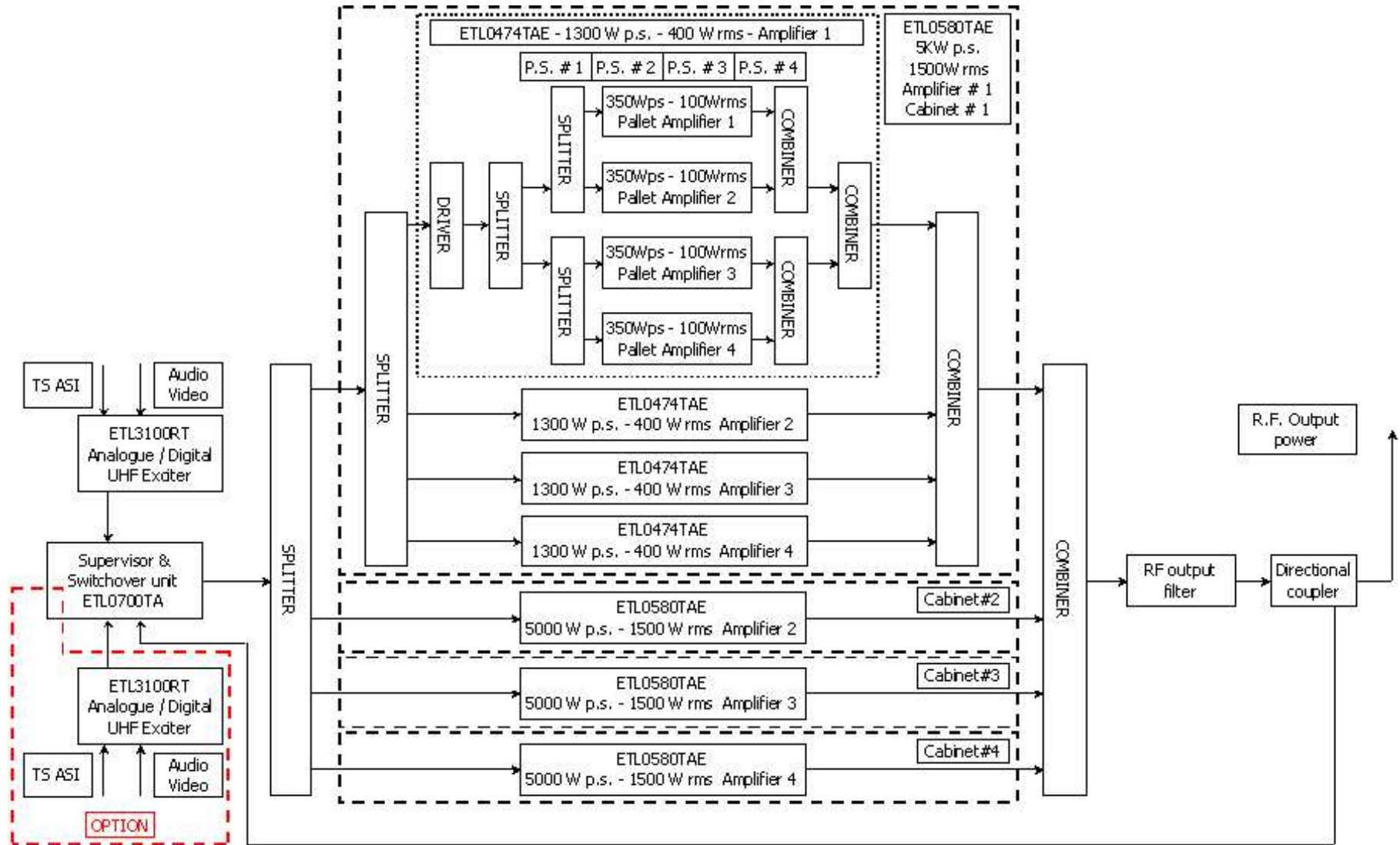




**UHF SOLID STATE TRANSMITTER
DUAL MODE ANALOGUE OR DVB
20KW p.s. OR 5KW rms
ETL1595TAE-TX**



20KW p.s. or 5KW mrs UHF SOLID STATE ANALOGUE or DVB-T TRANSMITTER BLOCK DIAGRAM - MODEL ETL1595TAE-TX



ANALOGUE TECHNICAL SPECIFICATIONS

General

Primary power	380 V Tri-phase. $\pm 15\%$ 47 to 60 Hz, Consumption: 48 kW @ 50% A.P.L. at 20KW vision carrier power.
Cooling	Air cooled
Operating temperature range	0°C to +45°C.
Storage temperature range	-10 to +70°C.
Nominal UHF output power	20KW
Protections	Over-voltage (crowbar). Over-current. Over-temperature. Excessive reflected RF output power. RF output power too high. RF output power too low. RF drive power too high (over-drive).
Alarms & Warnings	RF Forward power too high (alarm). RF Forward power too low (alarm). RF drive power too high (over-drive alarm). RF Reflected power too high (alarm). High heat-sink temperature (warning). High heat-sink temperature (alarm).

Output Parameters

Output frequency range	BANDS IV/V: 470-860 MHz.
Gain flatness	<1 dB.
Output impedance	50 Ω , unbalanced.
Permissible VSWR	<1.5
Standard Output power	20 KW
Spurious suppression	> 60 dB.
Harmonic suppression	> 60 dB.
Rejection of out of band IMD products	> 60 dB.
I.M.D. Products Suppression (with driver series ETL3100 or ETL2900)	> 60 dB (-8, -10, -16 dB) @ rated output power, with pre-correction inserted.

Transmission Quality

(with driver series ETL3100)

Vision weighted S/N ratio (CCIR 567)	> 60 dB.
Amplitude Frequency response	\pm .5 dB within the Vision band.
Group Delay deviations	\pm 30 ns within the Vision band.
2T K factor	< 1.5%.
Luminance non linearity	< 5%.
Differential Gain error	< 3%.
Differential Phase error	< 3 $^{\circ}$.
Sync pulse compression	< 3%.
Audio frequency S/N ratio	> 64 dB @ 50 KHz deviation.
Audio deviation limiter	Selectable.

Dimensions and Weight

Dimensions	4 Standard 19" frame, 42 unit. H=2200mm, D=1000mm, W= 2400mm.
Weight	1400 kg.

DIGITAL TECHNICAL SPECIFICATIONS

General

Primary power	380 V Tri-phase. $\pm 15\%$ 47 to 60 Hz, Consumption: 25 kW @ at 5KW rms.
Cooling	Air cooled
Operating temperature range	0°C to +45°C.
Storage temperature range	-10 to +70°C.
Nominal UHF output power	5000W rms
Protections	Over-voltage (crowbar). Over-current. Over-temperature. Excessive reflected RF output power. RF output power too high. RF output power too low. RF drive power too high (over-drive).
Alarms & Warnings	RF Forward power too high (alarm). RF Forward power too low (alarm). RF drive power too high (over-drive alarm). RF Reflected power too high (alarm). High heat-sink temperature (warning). High heat-sink temperature (alarm).

Input Parameters

Input signal	MPEG-2 ASI
Input impedance	75 Ω
External reference frequency	5 MHz or 10 MHz
External reference impedance	50 Ω
Time reference input frequency	1PPS
Time reference input impedance	50 Ω

Output Parameters

Output frequency range	BANDS IV/V: 470-860 MHz.
Gain flatness	<1 dB.
Output impedance	50 Ω , unbalanced.
Permissible VSWR	<1.5.
Standard Output power	5000 W rms
Spurious suppression	> 60 dB.
Harmonic suppression	> 60 dB.
Tuning resolution	1 Hz.
Long term output frequency stability	< 0.5 PPM / 6 months Or according to the external stability reference
MER	36dB Typ.
Shoulders	40dB Typ.

Supported Modes

IFFT mode	2K, 4K, 8K.
Guard intervals	1/4, 1/8, 1/16, 1/32
Code Rates	1/2, 2/3, 3/4, 5/6, 7/8
Modulation mode	QPSK, 16-QAM, 64-QAM
Hierarchical mode	Alpha 1-2-4 16-QAM, 64-QAM
Network mode	SFN and MFN
Bandwidth	8MHz, 7MHz, 6MHz and 5MHz.
DVB-H	2K and 4K in-deph interleavers

Pre-correction

Digital linear pre-correction

In band group delay and amplitude real time correction

Digital non-linear pre-correction

Broad band non linear Phase and amplitude real time cubic correction

Up to 4 phase and amplitude curve storable in eeprom memory

Dimensions and Weight

Dimensions

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H=2200mm, D=1000mm, W= 2400mm.

Weight

1400 kg.

