TOSHIBA
Leading Innovation

TDU8000 Series Digital Transmitter
Air-cooling (FAN)

Features

◆ High efficiency

- ➢ High power with minimized PA
  - The innovated LD-MOS FET

◆ Easy maintenance / operability

- ➢ Monitoring on the TX CONT touch screen LCD panel
- ➢ Plug in PA

◆ Reliability

- ➢ Needless of AVR within +/-15% voltage
- ➢ Keep operation with VSWR up to 1.3
- ➢ High reliable design
  - Transmitter protection: Preventive protection by automatic operation RF output, reflection ,and temperature
  - Emergency start switch: Forced re-start of transmitter system
  - Quad fan
- ➢ Adaptive compensation (standard)
- ➢ Intermodulation (IM): -37dB (standard)

◆ Easy installation

- ➢ Compact design
  - Small foot-print
  - Width 570mm, Depth 800mm,and Height 1900mm
  - Space factor : reduced 50% around from the former model
- ➢ Reduction of installation period
- ➢ Cooling system integrated inside TX cabinet

1kW model

◆ Flexibility

- ➢ All-band:
  - All UHF band (470 to 862 MHz) supported
- ➢ Various standards:
  - DVB-T/H, ATSC, ISDB-T/ISDB-T^{B*1}, DTMB and CMMB
    NTSC, PAL and SECAM

*1: Brazilian digital TV standard

Dimensions

Model	Dimensions					
	Number of PA	Output power (Max)	Weight* (kg)	Width (mm)	Depth (mm)	Height (mm)
TDU8024F#X	2	0.5kW	325	570	800	1900
TDU8034F#X	3	0.8kW	350			
TDU8044F#X	4	1.0kW	380			

*: Dual exciter model

Models

T D U 8 □ □ ○ △ # X

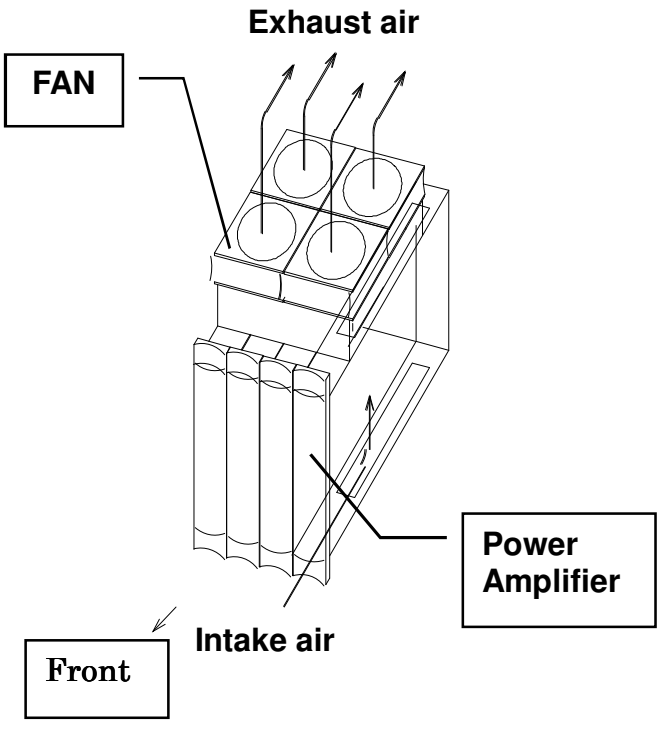
: Standard
A : ATSC B : ISDB-T/ISDB-T^{B} C : DTMB, CMMB
E : DVB-T H : DVB-H

△ : Cooling System
F : Air-cooling type

○ : Configuration
1 : Single Exciter
4 : Dual Exciter

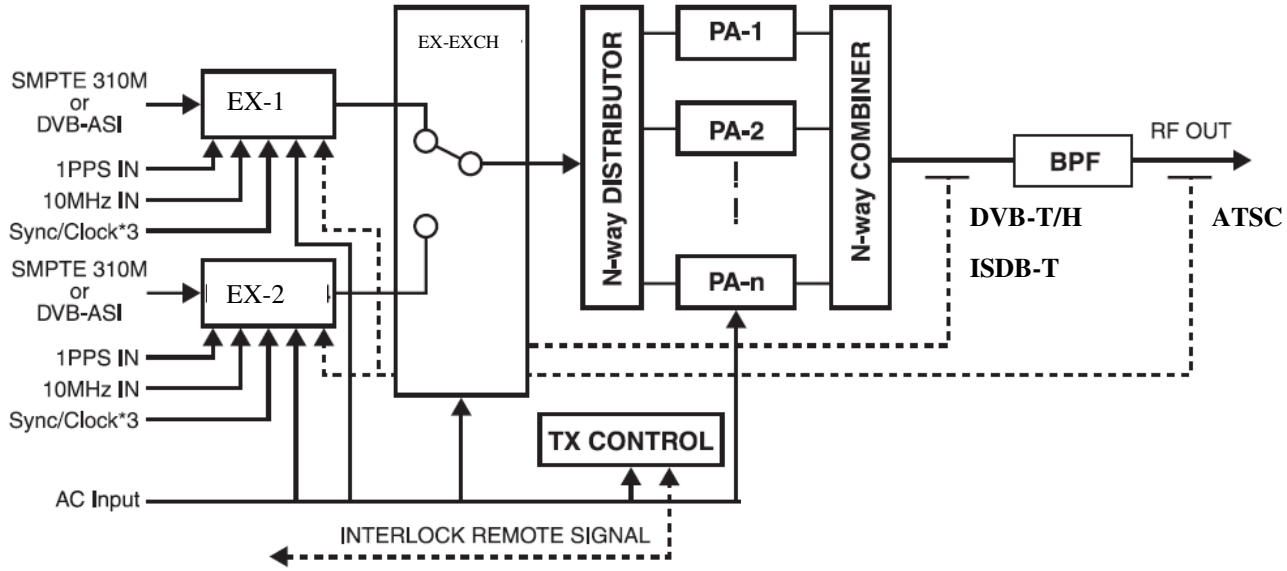
□□ : Number of PA
2 : 0.5kW, 3 : 0.8kW, 4 : 1.0kW

Cooling System



System Diagram

SYSTEM DIAGRAM OF THE DIGITAL TRANSMITTER



*1: ISDB-T

Environment Condition

Item	Conditions
AC Input Voltage Line frequency	3 phase 3 wires or 3 phase 4 wires 200/208/220/380/400/415/440 ± 15% 50/60Hz ±3%
Ambient temperature	Indoors 0℃ to 45℃
Relative humidity	95% (Max), without condensation
Maximum altitude	2,500m above sea level*

*Please consult us over 2,500m above sea level beyond standard specificatio

Specification

Item	ATSC	DVB-T/H	ISDB-T/ISDB-T^{B}
TS Input	SMPTE-310M	DVB-ASI	
Bandwidth	6MHz	6MHz / 7MHz / 8MHz	
RF Output : Load impedance	50Ω with VSWR≦1.3		
RF Output : Frequency	UHF TV channel 470-809MHz	UHF TV channel 470-862MHz	
Output Power Stability	±0.5dB or better	±0.5dB or better	±0.5dB or better
Frequency Stability	Within ±100Hz (over one year operation)		
Inter modulation	—	Better than -37dB	
Signal to Noise Ratio	Better than 27dB	—	—
Spurious	Less than -60dB / 20mW		

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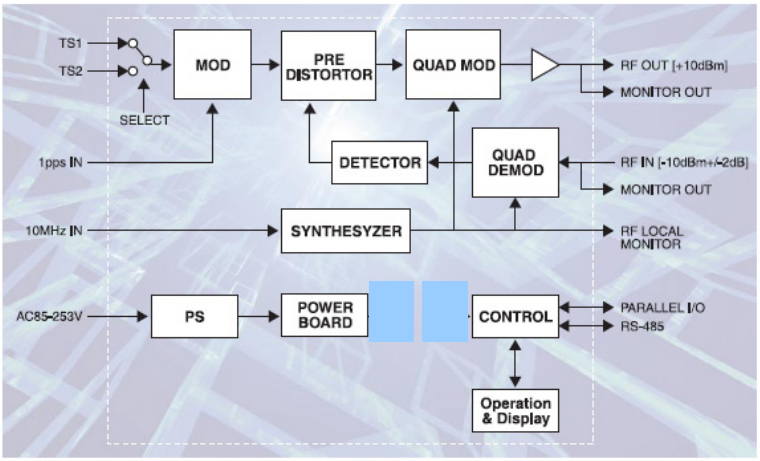
Exciter

BLOCK DIAGRAM [DIGITAL]



◆ *Reliability*

➢Automatic TS inputs switchover

◆ *All-band*

➢All UHF band (470 to 862 MHz) supported

◆ *Variety of Standards*

➢DVB-T/H, ATSC, ISDB-T/ISDB-TB *1, DTMB and CMMB
NTSC, PAL and SECAM

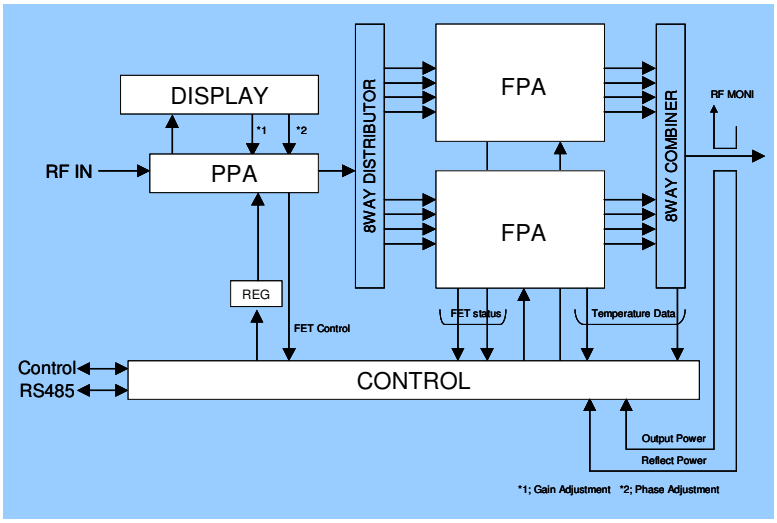
*1: Brazilian digital TV standard

◆ *High performance*

➢Linear and non-linear compensation

➢Preset compensation

Power Amplifier



◆ *High efficiency*

➢The innovated LD-MOS FET chips

◆ *Reliability*

➢Built-in PS

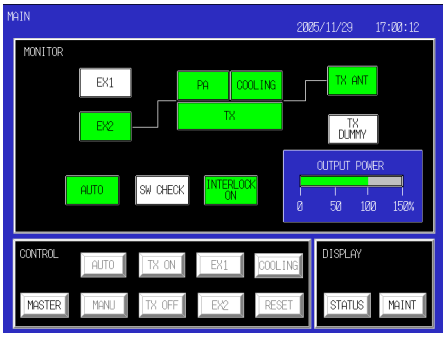
➢Various kind of protection

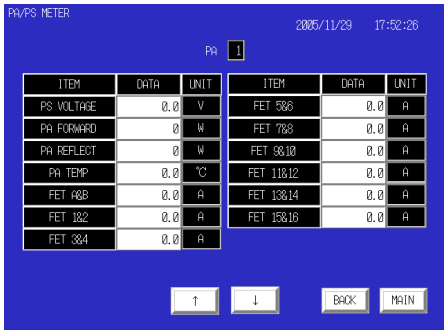
- Abnormal RF output, Reflection and Temperature

◆ *Easy maintenance*

➢RF IN connector at front panel

TX-Cont





- Easily perceivable System configuration, Alarm equipment
- Easily Transmitter Control
- Easily recognizable Status of equipment

Display Image may be different from actual. These figures dependent o
system configurations, etc.
Left: Main Display, Right: Sub Display (PA)

Attention : The contents herein may be changed without preliminary announcement.

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