



## FEATURES

- Available for leading DTV standards (DVB-T/H, DVB-T2, ATSC, ISDB-T/T<sub>β</sub>)
- MFN & SFN operations
- Linear and non-linear precorrections
- Compact design
- High energy efficiency to minimize consumption and OPEX
- High redundancy to ensure maximum reliability
- N+1 redundancy ready
- Configuration data stored in internal memory
- Local operation via front panel display or PC graphical user interface
- Forced air cooling
- AGC and ALC circuits
- Remote control interface

### Options:

- DAP
- Transposer configuration
- Dual driver configuration
- GPS receiver for SFN synchronization

## DESCRIPTION

The DFX PLATINUM SERIES is a family of high-performance digital transmitters fully compliant with most leading international DTV standards (DVB-T/H, DVB-T2, ATSC, ISDB-T/T<sub>β</sub>) and capable of Multi Frequency Network (MFN) and Single Frequency Network (SFN) operations. These air-cooled systems feature excellent signal quality and are available with output power levels up to 12KW for UHF, 14.4KW for VHB bIII, and 4.8KW for VHF bI.

The transmitter is based on the DX-XS exciter and DF power amplifier. The standard configuration also includes an output filter compliant with the emission mask requirements and a 19" standard rack cabinet. Cooling is provided by blowers on each device. Medium and high power systems also incorporate a hot air extractor on top of the cabinet. High power models are equipped with a general control unit to monitor and manage all the main operating parameters.

Broadband power amplifiers, based on the latest LDMOS technology, deliver high efficiency and reliable linear performance in a compact design. Multiple power amplifiers are combined to achieve higher output powers. Every PA runs independently to ensure high on-air reliability. The transmitter will continue to operate at reduced power if one or more amplifiers fail or are removed for maintenance. Each PA has its own switching power supply and SWR, overtemperature, overdrive, overcurrent, and overvoltage protections.

SIGNAL INPUTS	
Multiplexed Transport Stream	2 ASI, BNC Female, 75 Ω
Clock reference	10 MHz Level: 0.1 - 3 V <sub>pp</sub> BNC female, 50 Ω
Time reference	1 PPS, TTL level Trigger: falling edge BNC female, 50 Ω
NON-LINEAR PRECORRECTION	
Curve format	S21 and V0/V1
Amplitude scale	Linear and logarithmic
Correction points	Max. 256, user-defined
Spectral regrowth reduction	Max. 12 dB, subject to available headroom
Phase correction	-6 to +30 degrees, subject to available headroom
LINEAR PRECORRECTION	
Correcting points	61
Points spacing	1/60 of nominal spectrum BW
Amplitude correction	± 10 dB
Amplitude resolution	0.01 dB
Group delay correction	± 2000 ns
Group delay resolution	1 ns
Peak power clip level	+17 dB to +7 dB (relative to average RMS level)
ADAPTIVE NON-LINEAR PRECORRECTION (optional)	
Level	-15 dBm to 0 dBm
Frequency range	UHF: 470 - 860 MHz VHF bIII: 170 - 240 MHz VHF bI: 47-85 MHz
Spectral regrowth reduction	7 dB ± 2 dB
RF OUTPUT	
Frequency range	UHF: 470 - 860 MHz VHF bIII: 170 - 240 MHz VHF bI: 47-85 MHz
Frequency stability	± 1 ppm or externally synchronized with 10 MHz
GENERAL	
Power supply:	
Low/medium power models	100 - 240 VAC ± 15%
High power models	240 - 400 VAC ± 15% (single or triple phase)
Operating temperature range	-5 °C to +45 °C
Relative humidity	95 %, non-condensing
Cooling	Forced air

For detailed modulator specifications, please refer to the datasheet for the DX PLATINUM SERIES Exciter.

BAND	MODEL	OUTPUT POWER (Pre-filter)		OUTPUT CONN.	POWER CONSUMPTION		SIZE
		DVB-T/T2 ISDB-T/T <sub>β</sub>	ATSC		DVB-T/T2 ISDB-T/T <sub>β</sub>	ATSC	
UHF	DFX-2/U-XS	2.5 W	4 W	N	75 W	80 W	2HE
	DFX-5/U-XS	5 W	8 W	N	125 W	130 W	2HE
	DFX-10/U-XS	10 W	16 W	N	175 W	185 W	2HE
	DFX-40/U-XS	50 W	80 W	N	400 W	500 W	2HE
	DFX-100/U-XS	130 W	200 W	N	900 W	1.1 KW	21HE
	DFX-200/U-XS	250 W	400 W	DIN 7-16	1.7 KW	1.9 KW	21HE
	DFX-400/U-XS	500 W	750 W	DIN 7-16	3.1 KW	3.6 KW	21HE
	DFX-600/U-XS	1 KW	1.5 KW	EIA 7/8"	6.3 KW	7.2 KW	35HE
	DFX-800/U-XS	1.5 KW	2.25 KW	EIA 1+5/8"	9.5 KW	11 KW	35HE
	DFX-1000/U-XS	2 KW	3 KW	EIA 1+5/8"	12.6 KW	14.4 KW	2x35HE
	DFX-1600/U-XS	2.5 KW	3.75 KW	EIA 1+5/8"	15.7 KW	18 KW	2x35HE
	DFX-2000/U-XS	3 KW	4.5 KW	EIA 3+1/8"	19 KW	21.6 KW	2x35HE
	DFX-3000/U-XS	3.5 KW	5.25 KW	EIA 3+1/8"	22.2 KW	25.2 KW	3x35HE
	DFX-4000/U-XS	4 KW	6 KW	EIA 3+1/8"	25.3 KW	26.8 KW	3x35HE
	DFX-4500/U-XS	4.5 KW	6.75 KW	EIA 3+1/8"	28.4 KW	32.4 KW	3x35HE
	DFX-5000/U-XS	5 KW	7.5 KW	EIA 3+1/8"	30.5 KW	36 KW	3x35HE
VHF bIII	DFX-6000/U-XS	6 KW	9 KW	EIA 4+1/2"	37.9 KW	42.2 KW	4x35HE
	DFX-7000/U-XS	7 KW	10.5 KW	EIA 4+1/2"	44.4 KW	50.4 KW	5x35HE
	DFX-8000/U-XS	8 KW	12 KW	EIA 4+1/2"	50.6 KW	57.6 KW	5x35HE
	DFX-2/3-XS	2.5 W	4 W	N	75 W	80 W	2HE
	DFX-10/3-XS	10 W	16 W	N	140 W	150 W	2HE
	DFX-50/3-XS	75 W	100 W	N	450 W	550 W	2HE
	DFX-100/3-XS	180 W	230 W	DIN 7-16	800 W	1 KW	21HE
	DFX-300/3-XS	350 W	450 W	DIN 7-16	1.5 KW	1.8 KW	21HE
	DFX-600/3-XS	700 W	900 W	EIA 7/8"	3 KW	3.6 KW	35HE
	DFX-1200/3-XS	1.4 KW	1.8 KW	EIA 1+5/8"	6 KW	7.2 KW	2x35HE
VHF bI	DFX-1600/3-XS	2.8 KW	3.6 KW	EIA 1+5/8"	12 KW	14.4 KW	2x35HE
	DFX-2400/3-XS	5.6 KW	7.2 KW	EIA 1+5/8"	24 KW	28.8 KW	3x35HE
	DFX-4800/3-XS	11.2 KW	14.4 KW	EIA 4+1/2"	48 KW	57.6 KW	6x35HE
	DFX-2/1-XS	2.5 W	4 W	N	75 W	80 W	2HE
	DFX-10/1-XS	10 W	16 W	N	140 W	150 W	2HE
	DFX-50/1-XS	50 W	75 W	N	450 W	550 W	2HE
	DFX-100/1-XS	100 W	150 W	DIN 7-16	1 KW	1.2 KW	21HE
	DFX-200/1-XS	200 W	300 W	DIN 7-16	1.9 KW	2.3 KW	21HE
	DFX-400/1-XS	400 W	600 W	DIN 7-16	3.8 KW	4.6 KW	2x35HE
	DFX-800/1-XS	800 W	1.2 KW	EIA 1+5/8"	7.6 KW	9.2 KW	3x35HE
DFX-1600/1-XS	1.6 KW	2.4 KW	EIA 1+5/8"	15.3 KW	18.4 KW	4x35HE	
DFX-3200/1-XS	3.2 KW	4.8 KW	EIA 3+1/8"	30.8 KW	36.8 KW	6x35HE	

Model numbers refer to DVB-T. For other DTV standards, add the corresponding extension:  
 /A ATSC  
 /T2 DVB-T2  
 /IS ISDB-T