



exciters

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## Features/Caratteristiche

**High performance exciters, compact, reliable and easy maintenance.**

**Broadcast quality at a value price, can be used as drivers** for medium power FM stations or as **stand-alone applications.**

Compact, non-deformable and light, **2HE rack unit**, stainless steel chassis.

**High performance integrated stereo coder**, with L&R Mono and MPX inputs and 2 SCA / RDS signal inputs.

**Continuously adjustable output power from 0 to maximum power** with automatic APC control and Foldback protection.

**Safe operation in any working conditions.**

Completely **microprocessor-controlled** easy to program from the menu or via RS232, all **main parameters can be read on the LCD display.**

Possibility to be monitored through **all RVR telemetry systems** to guarantee simple remote control of the operating parameters.

Manufactured using SMD technology and composed of **only 4 modules.** Maximum operating reliability designed to allow an **easy maintenance.**

**Universal multi-voltage power supply from 80 to 260 V** with no pre-selection.

Modern technology that complies with all **EC, FCC and CCIR standards.**

**Eccitatori ad alte prestazioni, compatti, affidabili e di semplice manutenzione.**

**Qualità di trasmissione** senza compromessi ad un **prezzo competitivo utilizzabile come driver** per stazioni di media potenza **o applicazioni stand-alone.**

**Compatti, indeformabili e leggeri**, chassis in inox, in sole **2 unità rack.**

**Stereo coder integrato** ad elevate prestazioni, ingressi L&R, Mono ed MPX e 2 ingressi per segnali SCA / RDS.

**Potenza di uscita regolabile con continuità da 0 alla potenza massima** con controllo automatico APC e protezione Foldback. Funzionamento sicuro in ogni condizione di esercizio.

**Completamente controllati da microprocessore**, facilmente programmabile da menu o via RS232, **lettura su display LCD di tutti i parametri principali.**

Perfettamente **interfacciabili con tutti i sistemi di telemetria RVR** per un facile controllo remoto dei parametri di funzionamento.

Costruiti in tecnologia SMD e costituiti da **solli 4 moduli.** Elevata sicurezza di esercizio ed **estrema facilità di manutenzione.**

Alimentatore universale **multitensione da 80 a 260 V** senza necessità di pre-selezione.

Tecnologia moderna pienamente rispondente alle norme **EC, FCC ed CCIR.**

TEX 30  
TEX 50  
TEX 100/150

Stereo/MPX

FM Exciters

87.5 - 108 MHz

(OIRT and JPN Band upon request)

BROADCAST  
EQUIPMENT

exciters

## Technical specifications TEX

Parameters	Conditions	U.M.
<b>GENERALS</b>		
Frequency range	From software, with 10 kHz steps(OIRT and JPN on request)	MHz
Rated output power	Continuously variable by software from 0 to maximum	W
Modulation type		
Operational Mode		
Ambient working temperature	Whithout condensing	°C
Frequency stability	WT from -10°C to 50°C	ppm
Modulation capability		kHz
Pre-emphasis mode	selectable by external jumpers	rYS
Spurious & harmonic suppression		dBc
Asynchronous AM S/N ratio	Referred to 100% AM, with no de-emphasis	dB
Synchronous AM S/N ratio	Referred to 100% AM, FM deviation 75 kHz by 400Hz sine, without de-emphasis	dB
<b>MONO OPERATION</b>		
S/N FM Ratio	RMS @ ± 75 kHz peak, HPF 20Hz - LPF 23 kHz, 50 rYS de-emphasis	dB
	Qpk @ ± 75 kHz peak, CCIR weighted, 50 rYS de-emphasis	dB
	Qpk @ ± 40 kHz peak, CCIR weighted, 50 rYS de-emphasis	dB
Frequency Response	30Hz ÷ 15kHz	dB
Total Harmonic Distortion	THD+N 30Hz ÷ 15kHz	%
Intermodulation distortion	Measured with a 1 KHz and 1.3 KHz tones, 1:1ratio, at FM 75 kHz	%
Transient intermodulation distortion	Measured with a 3.18 kHz square wave and a 15 kHz sine wave at 75 kHz FM	%
<b>MPX OPERATION</b>		
Composite S/N FM Ratio	RMS @ ± 75 kHz peak, HPF 20Hz - no LPF, 50 rYS de-emphasis	dB
Frequency Response	30Hz ÷ 53kHz / 53kHz ÷ 100kHz	dB
Total Harmonic Distortion	THD+N 30Hz ÷ 53kHz / THD+N 53kHz ÷ 100kHz	%
Intermodulation distortion	Measured with a 1 KHz and 1.3 KHz tones, 1:1, modulation at FM 75 kHz	%
Transient intermodulation distortion	Measured with a 3.18 kHz square wave and a 15 kHz sine wave at 75 kHz FM	%
Stereo separation	30Hz ÷ 53kHz	dB
<b>STEREO OPERATION</b>		
Stereo S/N FM Ratio	RMS @ ± 75 kHz peak, HPF 20Hz - LPF 23 kHz, 50 rYS de-emphasis, L & R demodulated	dB
	Qpk @ ± 75 kHz peak, CCIR weighted, 50 rYS de-emphasis, L & R demodulated	dB
	Qpk @ ± 40 kHz peak, CCIR weighted, 50 rYS de-emphasis, L & R demodulated	dB
Frequency Response	30Hz ÷ 15kHz	dB
Total Harmonic Distortion	THD+N 30Hz ÷ 15kHz	%
Intermodulation distortion	Measured with 1 KHz and 1.3 KHz tones, 1:1 ratio, modulation at FM 75 kHz	%
Transient intermodulation distortion	Measured with a 3.18 kHz square wave and a 15 kHz sine wave at 75 kHz FM	%
Stereo separation		dB
<b>SCA OPERATION</b>		
Frequency response	40kHz ÷ 100kHz	dB
<b>AUDIO INPUTS</b>		
Left / MPX balanced	XLR Female	
	Impedance / level adjust	Ohm / dBu
Right	XLR Female	
	Impedance / level adjust	Ohm / dBu
MPX unbalanced	BNC Female	
	Impedance / level adjust	Ohm / dBu
SCA and RDS	BNC Female	
	Impedance / level adjust	Ohm / dBu
<b>OUTPUTS</b>		
RF output	N Female / Impedance	Ohm
RF monitor	BNC Female / Output Level referred to the RF output	dB
Pilot output	BNC Female / Impedance / output level	Ohm / Vpp
MPX output	BNC Female / Output Level	dBu
<b>AUXILIARY CONNECTIONS</b>		
Type		

These are general specifications. They show typical values and are subject to change without notice.

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## Technical specifications TEX

TEX 30	TEX 50	TEX 100/150
Value	Value	Value
87.5 ÷ 108	87.5 ÷ 108	87.5 ÷ 108
30	50	100 / 150
Direct carrier frequency modulation	Direct carrier frequency modulation	Direct carrier frequency modulation
Mono, Stereo, Multiplex	Mono, Stereo, Multiplex	Mono, Stereo, Multiplex
-10 to + 50	-10 to + 50	-10 to + 50
±1	±1	±1
150 Stereo, 180 Mono/MPX	150 Stereo, 180 Mono/MPX	150 Stereo, 180 Mono/MPX
0, 50 (CCIR), 75 (FCC)	0, 50 (CCIR), 75 (FCC)	0, 50 (CCIR), 75 (FCC)
<75 (80 typical)	<75 (80 typical)	<75 (80 typical)
≥ 65 (typical 70)	≥ 65 (typical 70)	≥ 65 (typical 70)
≥ 50 (typical 60)	≥ 50 (typical 60)	≥ 50 (typical 60)
> 80 (typical 85)	> 80 (typical 85)	> 80 (typical 85)
>73	>73	>73
>68	>68	>68
better than ± 0.5 dB (typical ± 0.2)	better than ± 0.5 dB (typical ± 0.2)	better than ± 0.5 dB (typical ± 0.2)
< 0.1 (Typical 0.07%)	< 0.1 (Typical 0.07%)	< 0.1 (Typical 0.07%)
< 0.02	< 0.02	< 0.02
< 0.1 (typical 0.05)	< 0.1 (typical 0.05)	< 0.1 (typical 0.05)
> 80 (typical 85)	> 80 (typical 85)	> 80 (typical 85)
± 0.2 / ± 0.5	± 0.2 / ± 0.5	± 0.2 / ± 0.5
< 0.1 / < 0.15	< 0.1 / < 0.15	< 0.1 / < 0.15
< 0.05	< 0.05	< 0.05
< 0.1 (typical 0.05)	< 0.1 (typical 0.05)	< 0.1 (typical 0.05)
> 50 dB (typical 60)	> 50 dB (typical 60)	> 50 dB (typical 60)
> 75 (78 typical)	> 75 (78 typical)	> 75 (78 typical)
> 65 dB	> 65 dB	> 65 dB
> 58 dB	> 58 dB	> 58 dB
± 0.5	± 0.5	± 0.5
< 0.05	< 0.05	< 0.05
≤ 0.03	≤ 0.03	≤ 0.03
< 0.1 (typical 0.05)	< 0.1 (typical 0.05)	< 0.1 (typical 0.05)
> 50 (typical 55)	> 50 (typical 55)	> 50 (typical 55)
± 0.5	± 0.5	± 0.5
balanced or externally unbalanced	balanced or externally unbalanced	balanced or externally unbalanced
10 k or 600 / - 13 to +13	10 k or 600 / -13 to +13	10 k or 600 / -13 to +13
balanced or externally unbalanced	balanced or externally unbalanced	balanced or externally unbalanced
10 k or 600 / - 13 to +13	10 k or 600 / -13 to +13	10 k or 600 / -13 to +13
unbalanced	unbalanced	unbalanced
10 k or 50 / -3 to +13	10 k or 50 / -3 to +13	10 k or 50 / -3 to +13
unbalanced	unbalanced	unbalanced
10 k / -3 to +13	10 k / -3 to +13	10 k / -3 to +13
50	50	50
approx. -30	approx. -30	approx. -60
>5 k / 1	>5 k / 1	>5 k / 1
0	0	0
Interlock / Ext.ref. 10 MHz / RS232 / RS485	Interlock / Ext.ref. 10 MHz / RS232 / RS485	Interlock / Ext.ref. 10 MHz / RS232 / RS485
Serial Interface / Service / Modem / I2C /	Serial Interface / Service / Modem / I2C /	Serial Interface / Service / Modem / I2C /
Remote and Telemetry interface	Remote and Telemetry interface	Remote and Telemetry interface

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## Technical specifications TEX

Parameters	Conditions	U.M.
<b>POWER REQUIREMENTS</b>		
AC Power Input	AC Supply Voltage (*) Full range (**) Internal switch	VAC
	AC Apparent and Active Power Consumption	VA / W
	Power Factor	
DC Power Input	DC Supply Voltage / Current	VDC / ADC
<b>MECHANICAL DIMENSIONS</b>		
Physical Dimensions	Front panel width	mm (")
	Front panel height	mm (")
	Overall depth	mm (")
Weight		kg
<b>OPTIONS</b>		
Input 10 MHz		code
<b>VARIOUS</b>		
Cooling		
Acoustic Noise		dBA
<b>STANDARD COMPLIANCE</b>		
Safety		
EMC		
Spectrum Optimization		

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TEX 30	TEX 50	TEX 100/150
Value	Value	Value
80 ÷ 260 (*)	80 ÷ 260 (*)	115 / 230 ±15% (**)
130 / 70	200 / 100	440 / 260
0,5	0,5	0,6
24 / 3.5 (*)	24 / 4.5 (*)	28 / 8,2 (**)
483 (19")	483 (19")	483 (19")
88 (3 1/2") 2HE	88 (3 1/2") 2HE	88 (3 1/2") 2HE
400 (15,7")	400 (15,7")	400 (15,7")
6,7	8,5	8,5
/10MHz	/10MHz	/10MHz
Forced, with internal fan < 58	Forced, with internal fan < 58	Forced, with internal fan < 58
EN60215:1989	EN60215:1989	EN60215:1989
EN 301 489-11 V1, 2, 1	EN 301 489-11 V1, 2, 1	EN 301 489-11 V1, 2, 1
ETS 300 447	ETS 300 447	ETS 300 447

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