



SFT DAB

SERIES

**DAB Transmitters
up to 15 kW rms**

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Screen is a world-renowned company focused on turn-key and end-to-end solutions for all broadcasting needs.

With more than 30 years of experience, thousands of satisfied customers and more than 60.000 transmitters installed all over the world, Screen is the leading company in digital TV technology.

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DAB	SERIES
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Support standards
DAB, DAB+ and T-DMB.
Compatible with major
headend brands.

New Multiple Configuration
Flexible Hardware Platform

Flexible Software configuration
and fully frequency agile



Digital Audio Broadcasting DAB Transmitters

The new DAB Transmitters are reaching the highest technology level in both Digital Signal Processing and RF domain.

Top performances are possible thanks to:

1) Improved digital adaptive precorrection and configuration flexibility

To meet and exceed all the Digital Radio International Broadcasters requirements, optimizing modulation performances in every working condition.

2) High Efficiency new SFK Amplifiers

Latest generation LDMOS devices, more rugged and efficient, special low-loss design of matching and combining system, high-efficiency power supplies (over 96%). Widely reduced overall consumption.

3) Hot pluggable power supplies and RF modules

All RF power modules are hot pluggable (both liquid and air cooled) for an easy and fast maintenance on site.

All RF power modules are equipped with hot pluggable independent power supplies for maximum redundancy and easy selection of the operating mode between single phase or balanced three phases.

The latest generation of industry higher class power supplies grants over 96% efficiency with wider input AC range capability and greater ruggedness.

4) Compactness

Compact-sized amplifier modules thanks to a new concept of heatsync and ultracompact power supplies, both in air or liquid cooling systems.

A 5 kW rms DAB Transmitter in a single rack is just an example of this extreme compactness.

5) Smart System Design

Latest generation RF combiner technology with ultracompact unbalancing dummy loads and a smart intercommunication interface between RF modules, drivers and Logical Control System.



Main Features

1. **Compatible with major headend brands**, field-proven
2. **Compact, flexible and easy to use** in any DAB network
3. **High power in extremely compact size** and top-level efficiency.
4. **Built-in SFN adapter** and very advanced SWDT[®], Software Defined Transmitters technology.
5. **EDI /ETI** seamless switching with full FEC control tested
6. **Typical MER >33dB** at all power levels and in all channels with shoulders >37dB without mask filter.
7. **Highly stable in SFN network** thanks to high quality local oscillator working in combination with embedded GPS built-in receiver.
8. **Total remote control** through built-in web server SNMP.
The internal web server allows an easy monitoring and configuration through a LAN connection and a standard web browser.
9. High reliability, scalable and **flexible configuration modes**: dual drive, passive standby or N+1.
10. **Liquid or air cooled.**

- **Supported standards: DAB, DAB+, T-DMB** optional
- Frequency range: VHF (III) 170 MHz to 255 MHz, L band on request.
- DAB-Modes: I, II, III, IV.
- Network type: MFN, SFN.
- Bandwidth 1.536 MHz.
- Reference Standard: ITU-T G703-G704, EN 300401, EN 300799, EN 302077-2.

- **DAB Signal Input**
 - ETI (NI) 2.048 MHz or ETI (NA), according to ETSI EN 300 799 Input Connectors: BNC (F), 75
 - EDI (Encapsulation of DAB Interface) according to ETSI TS 102 693 Input Connectors: Ethernet, RJ45

- Typical MER >33dB at all power levels and in all channels with shoulders >37dB without mask filter.
- Integrated GPS/Glonass Professional Receiver.
- Built-in high stability OCXO.
- Fully qualified for SFN – Hitless input switching
- Seamless switching between EDI/ETI inputs without broadcasting interruption.
- Integrated SNMP management with events log.
- Integrated GbE interface for management
- Digital linear adaptive pre correction.
- Digital non-linear adaptive precorrection with automatic curves loading for each channel and power levels.
- Wide Range Power Supply 90-264 V AC (3 phase) in fuse-free configuration (SW Standby Switch).
- Quick-acting protection circuits against overpower and direct/reflected power.
- Protection against reflected power with automatic fold-back.
- Easy SW/FW update.
- Security Authentication for GUI access.
- High Definition Color Display.
- MNSC Analyser embedded

Technical Specifications		
Frequency range	VHF (Band III)	170 to 255 MHz, in 1 Hz Step. L-Band on request
Available standards (all standards are full compliant)	Digital Audio Broadcasting	DAB, DAB+, T-DMB (on request)
Power Supply	AC Line Voltage	380 to 415 (3 phases), 208 to 240 Delta or Star; 47 Hz to 63 Hz (specify at order)
	AC Line variations	+/- 15%
	Power factor	0,98
Environmental Conditions	Altitude	max 2500 m above sea level (> 2500 m on request)
	Operating temperature range	-10°C to +45°C at sea level, upper limit derated of 2 °C per 300m over 1000 m above sea level
	Relative humidity	95 %, not-condensing
	Cooling method	Forced Air /Liquid with external heat exchanger with redundant pump and fan
RF output	Output power range	Up to 15 kW rms
	RF load impedance	50 Ohm
	VSWR	Power reduction after exceeding the set value or switch off after three attempts
	RF Output connector	See Specific Data Sheet or selection table in the next page
Transmitter size	Rack Unit, Weight, Dimensions	See Specific Data Sheet or selection table
Synchronization	Reference frequency	10 MHz, 0.1 V to 5 V (Vpp) or TTL, BNC
	Reference pulse	1pps (1 Hz, TTL, BNC)
Operations Control and Monitoring	Remote	Web based Interface
		SNMP V2c (V3 on request)
		Telnet access via ethernet
	Local	Extensive front panel control (color display, keypad)
		Local terminal on RS232 or LAN
		USB for upgrade
Compliance and Conformity	RoHS	2011/65/EC
	Radio Equipment Directive (RED)	2014/53/EU
	Safety	EN 60215
	EMC	EN 301-4891-1 - ETSI EN 302 296-2 V1.2.1 (2011-05)
	WEEE	2012/19/EU
	Manufacturing	ISO 9001:2015

Selection Table

Models	Output Band	Working Class	Dimensions	N. Ampl	Output Connector	Cooling	Shoulders (@ Fo 0,770 MHz DAB)	DAB Output power W rms MER>33
SFT DAB 000	VHF (III)	A	1 RU		N	Air	-37	1mW
SFT DAB 015	VHF (III)	AB	1 RU		N	Air	-37	15
SFT DAB 150	VHF (III)	AB	2 RU		7/16"	Air	-37	180
SFT DAB 300/C	VHF (III)	AB	2 RU		7/16"	Air	-37	300
SFT DAB 300/M	VHF (III)	AB	1+3 RU	1	7/16"	Air	-37	300
SFT DAB 600 /C	VHF (III)	AB	3 RU	1	7/16"	Air	-37	600
SFT DAB 600 /M	VHF (III)	AB	1+4 RU	1	7/16"	Air	-37	600
SFT DAB 1200	VHF (III)	AB	1+4 RU	1	7/8"	Air	-37	1200
SFT DAB 2400	VHF (III)	AB	40 RU	2	1+5/8"	Air	-37	2400
SFT DAB 2400/L	VHF (III)	AB	40 RU	2	1+5/8"	Liquid	-37	2400
SFT DAB 3500	VHF (III)	AB	40 RU	3	1+5/8"	Air	-37	3500
SFT DAB 3500/L	VHF (III)	AB	40 RU	3	1+5/8"	Liquid	-37	3500
SFT DAB 4500	VHF (III)	AB	45 RU	4	3+1/8"	Air	-37	4500
SFT DAB 4500/L	VHF (III)	AB	40 RU	4	3+1/8"	Liquid	-37	4500
SFT DAB 5500	VHF (III)	AB	45 RU	5	3+1/8"	Air	-37	5500
SFT DAB 5500 /L	VHF (III)	AB	40 RU	5	3+1/8"	Liquid	-37	5500
SFT DAB 6500	VHF (III)	AB	45 RU	6	3+1/8"	Air	-37	6500
SFT DAB 6500/L	VHF (III)	AB	45 RU	6	3+1/8"	Liquid	-37	6500
SFT DAB 7500	VHF (III)	AB	2 x 40 RU	8	3+1/8"	Air	-37	7500
SFT DAB 7500/L	VHF (III)	AB	2 x 40 RU	8	3+1/8"	Liquid	-37	7500
SFT DAB 10000	VHF (III)	AB	2 x 45 RU	10	4+1/2"	Air	-37	10000
SFT DAB 10000/L	VHF (III)	AB	2 x 45 RU	10	4+1/2"	Liquid	-37	10000
SFT DAB 12500/L	VHF (III)	AB	3 x 40 RU	12	4+1/2"	Liquid	-37	12500
SFT DAB 15000/L	VHF (III)	AB	3 x 40 RU	16	4+1/2"	Liquid	-37	15000

Specifications may be subject to change without notice

All models are available also as /XE, eXtreme Efficiency, with overall efficiency up to 42%



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