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

With more than 28 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.

www.screen.it
Flexible Software configuration and fully frequency agile

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.
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.

**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.
## Technical Specifications

<table>
<thead>
<tr>
<th><strong>Frequency range</strong></th>
<th>VHF (Band III)</th>
<th>170 to 255 MHz, in 1 Hz Step. L-Band on request</th>
</tr>
</thead>
</table>

### 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**: V1 V2 V3
- **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
- **Safety**: EN 60215
- **EMC**: EN 301-489-1-1 - ETSI EN 302 296-2 V1.2.1 (2011-05)
- **WEEE**: 2012/19/EU
- **Manufacturing**: ISO 9001:2015

Specifications may be subject to change without notice.
<table>
<thead>
<tr>
<th>Models</th>
<th>Output Band</th>
<th>Working Class</th>
<th>Dimensions</th>
<th>N. Ampl</th>
<th>Output Connector</th>
<th>Cooling</th>
<th>Shoulders (@ Fo 0,770 MHz DAB)</th>
<th>DAB Output power W rms MER&gt;33</th>
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<tbody>
<tr>
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<td>VHF (III)</td>
<td>A</td>
<td>1 RU</td>
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</tbody>
</table>

Specifications may be subject to change without notice

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