

## E-Compact EC710MP-BB UHF Digital TV Transmitters

E-Compact TV • High Efficiency • UHF Broadband • Air Cooled • Doherty Technology

**ATSC 3.0**  
**ATSC 1.0**  
**1000 Watts RMS**

**Winner of Future's Best of Show Award,  
Presented by TV Technology**



### Highlights:

- 1300 Watts RMS ATSC 1.0 / ATSC 3.0 (Before Filter);
- Power Amplifier Drawer efficiency up to 36%;
- Broadband: 470 to 608MHz;
- Compact structure, 19" 8U or 19" 25U cabinet mounting;
- Single 3U Compact Power Amplifier Drawer with ten Doherty Technology Transistors;
- Single 1U Power Supply Drawer with four Plug-in 1200W Power Sources (25% Equipment Power Redundancy);
- Easy assembly and maintenance, Powers Sources featuring Plug-In connection, no wiring or cables required;
- Fans speed rotation automatic control: decrease noise levels, saving of electrical energy and useful life increase;
- High versatility. Compatible with ATSC 1.0 / ATSC 3.0 Exciters. Excellent response to any pre-adaptive signal correction and high performance in SFN network transmission or MFN retransmission;
- AC Mains Protection Unit, composed of Surge Protection Devices (SPD) and Circuit Breakers that limit possible overvoltages of the AC mains, protecting the Equipment;

### Included:

- Main Control Software, WEB Server and SNMP<sup>®</sup>;
- USB Communications Drive;
- EIA 1-5/8" RF Output Line with Sample Probe to monitor the RF Output signal after the RF Mask Filter;
- EIA 1-5/8" RF Low Pass Filter;
- Sample probe before RF Mask Filter inside Power Amplifier Drawer;
- 19" Ethernet<sup>1</sup> Switch;
- Control Module Drawer;

### Optional:

- Telesupervision Module, Telemetry though GPRS;
- 8U or 25U Cabinet mounting;
- Double Exciter. Two Control Module (Main and Backup) for Exciter Redundancy. Only available in 25U Cabinet mounting;
- 6-pole RF Mask Filter with connection kit;
- 8-pole RF Mask Filter with connection kit;



**E-Compact**  
Less energy. More power.

Empresa Certificada  
**ISO 9001**  
10 anos de certificação

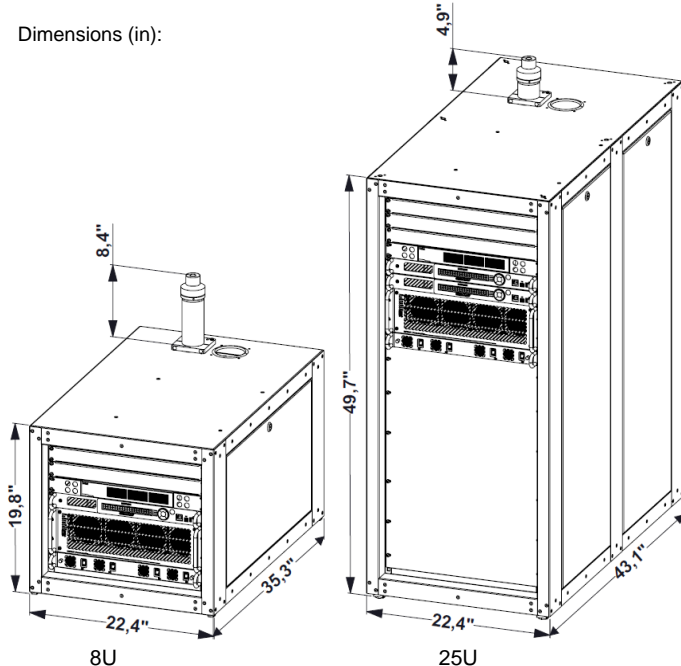
## General Specifications

- IP Input;
- Control Module present;
- Switch Module present;
- 1.3kW Power Amplifier Drawer ATSC 1.0 / ATSC 3.0;
- High efficiency with Doherty technology;
- Air cooled;
- Automatic Fan Speed Control providing low noise levels, energy saving and increased lifespan;
- Power supplies featuring Power Factor Correction better than 0.95;
- Measures and alarms through front display and keypad or remotely<sup>5</sup>.
- VSWR and Overdrive protection via hardware with power reduction;
- Software oriented overheating protection for internal modules;
- Adaptive Digital Pre-correction (Linear and No-Linear);
- Telemetry: WEB Server/SNMP, for local or remote management<sup>5</sup> (Optional);
- Main Control Software, WEB Server and SNMP<sup>5</sup>;
- USB communication Drivers;
- Passive elements: Low-pass filter, before and after-filter probes;
- Rack 19" standard mount. 8U or 25U (Two Exciters only in 25U);

## Mechanical Features

Equipment Weight	8U	162,3lbs / 73,6Kg
	25U Single Exciter	202,4lbs / 91,8Kg
	25U Double Exciter	218,7lbs / 99,2Kg
Equipment Color	Beige	
Transmitter Service/Access	Top and Front	

Dimensions (in):



## RF Performance

Modulation Standard	ATSC 3.0 A/300 ATSC 1.0 A/53
Output Power (After Filter)	ATSC 3.0 ATSC 1.0
Output Power (Before Filter)	ATSC 3.0 ATSC 1.0
RF Output Regulation	± 0.1 dB
Operation Frequency	470MHz to 608MHz (UHF) Channel 14 to Channel 36
Bandwidth	6 MHz
RF Input Level	0dBm
ATSC 3.0 MER Performance	≥35dB
ATSC 1.0 MER Performance	≥36dB
Harmonics/Spurious	better than -60dBc
Output Impedance / Connector	50Ω / 1-5/8" EIA

## Electrical Features

Power Requirement	<b>Single Phase 240Vac:</b> 180~254VAC Between Both wire.		
(specify configuration at equipment purchase order)	<b>Wye Three-Phase 208Vac:</b> 180~254VAC Between three Phases.		
	<b>Delta Three-Phase 240Vac:</b> 180~254VAC Between three Phases.		
	<b>Single Phase 208Vac Wild Leg<sup>4</sup>:</b> 180~254VAC Between Phases to Neutral (using Delta Three Phase 240Vac).		
	<b>Wye Three-Phase 380Vac<sup>4</sup>:</b> 180~254VAC Between three Phases and Neutral.		
Frequency AC mains	43Hz ~ 63 Hz		
Power Factor Correction	Typical 0.95, minimum 0.9		
Typical Efficiency	ATSC 1.0: >36.5% Before Filter ATSC 3.0: >34.5% Before Filter		
Typical Consumption	TPO	DC	AC
(Single Drive, ATSC 1.0)	1.0 kW	2.93 kW	3.18 kVA
6 poles Filter			
Typical Consumption	TPO	DC	AC
(Single Drive, ATSC 3.0)	1.0 kW	3.11 kW	3.38 kVA
6 poles Filter			
Typical Consumption	TPO	DC	AC
(Single Drive, ATSC 3.0)	1.0 kW	3.29 kW	3.58 kVA
8 poles Filter			
Typical Heat Dissipation	7500 BTU/h		
ATSC 1.0 – 6 Poles Filter	8200 BTU/h		
ATSC 3.0 – 6 Poles Filter	9000 BTU/h		
ATSC 3.0 – 8 Poles Filter			

## Environment Features

Operation altitude	up to 8200ft <sup>2</sup> ASL <sup>3</sup>
Environment temperature range	+32°F to +113°F (+77°F recommended) 0°C to +45°C (+25°C recommended)
Environment humidity range	0 to 95% (non-condensing)
Power Amplifier Cooling	Forced ambient air, front to back flow using integral high volume fans

## Interfaces

Monitor / Control Interface	Web GUI and SNMP: Ethernet <sup>1</sup> via RJ-45
Communication Interfaces	USB / Ethernet <sup>1</sup> / SNMP
Format	Ethernet <sup>1</sup> (IEEE 802.3u) 10Base-T/100Base-TX

### Notes:

- <sup>1</sup>Ethernet is a trademark of Xerox Corporation.  
<sup>2</sup>Above 8200ft on request.  
<sup>3</sup>ASL: Above Sea Level.  
<sup>4</sup>Electric grid on request  
<sup>5</sup>Consult factory when using transmitter's web interface on same network as a multicast stream.

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