EDDYSTONE
BROADCAST
www.eddystone-broadcast.com

# S7701
## 1kW FM Transmitter

## Introduction

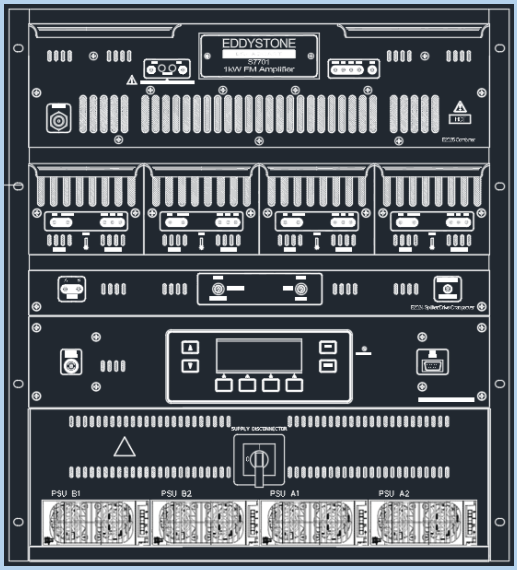
The S7701 FM transmitter is an evolution of the highly modular architecture for which Eddystone Broadcast transmitters are legendary. The use of 350W hot-pluggable LDMOS Power Amplifier modules means that removal of amplifiers can be carried out with minimal reduction in output power. The design also features highly efficient hot-pluggable switched mode power supplies which also provide ease of servicing. Both PA and SMPSU modules are common to the entire 7700 range from 500W to 20kW, resulting in greatly reduced spares holding costs for networks and groups.

## System Overview

The drive input is fed to an 4 way splitter which provides the PA module input drive. Each E2021 Power amplifier uses dual packaged LDMOS FETs mounted on a substantial heat sink assembly with minimum airflow over RF components. DC power is fed to the RF modules from the 2 or 4 switched mode power supplies. Internal control and self protection in case of reverse power, excess current or over temperature is handled within each individual E2021 power amplifier module with all monitoring being microprocessor derived. Each module transmits its internal parameters to the central transmitter controller/monitor (E2023) and parameters are displayed on an easy to read backlit LCD screen.

## Features

Compact and lightweight modules
Amplifiers, power supplies, fans and monitor/control units are all hot-swappable
Complete duplication of all active circuitry
Very high on-air availability
Highly efficient LDMOS amplifiers, efficiency typically 70% (AC to RF)
Fully compliant with ETS 300 384 specification for FM transmitters
Easily configured into a wide range of system architectures
Uses highly efficient SMPS power supplies with PF correction
Comprehensive remote control and monitoring facilities
LCD display ensures easy local monitoring
Dual single phase mains inputs




## Specifications

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|---|---|
| **Power Output** | 1kW (Adjustable to –4dB) |
| **Operating Frequency** | 87.5 to 108 MHz |
| **RF Output Load Impedance** | 50 ohm unbalanced |
| **RF Output Connector** | 7-16 DIN |
| **Maximum VSWR** | Able to maintain full power at 1.9:1 before protection cuts in |
| **Mains Power Supply** | Dual single phase 230V AC |
| **RF Harmonic Output** | Better than or equal to –76dBc |
| **Ambient Temperature Range** | 0ºC to +55ºC at an altitude up to 3000M |
| **Overall Efficiency (AC to RF)** | Typically 70% |

In line with our policy of continual development, we reserve the right to alter specifications without notice.

Legendary in the world of broadcasting