

SMARTFM[®]

Up to 40% energy savings
for FM broadcasters

SmartFM is an award-winning, worldwide patented technology which enables radio broadcasters to reduce their energy costs by up to 40% - without any compromise on audio quality and coverage.

Ecreso transmitters are among the most cost-competitive on the market, and thanks to onboard SmartFM technology, broadcasters can tackle rising energy costs while meeting their sustainability goals.

SmartFM:

- Reduces electricity costs by up to 40%
- Lowers carbon footprint of FM broadcast

1000+
TRANSMITTERS
ON-AIR
WITH SMART FM

BEST
Total Cost
OF OWNERSHIP

65 YEARS
OF FM RADIO
expertise

The beginnings of SmartFM

With energy costs soaring across the globe, reducing consumption is increasingly a top priority among radio broadcasters, to lower operating expenses as well as to implement greener solutions for the planet. In the broadcast chain, the transmitter is the most significant consumer of energy as it continuously delivers a fixed output power to the antenna. To reduce FM transmitters' energy consumption, the first step is to ensure highest efficiency.

After years of innovation and the integration of state-of-the-art technologies such as the most recent LDMOS transistors and high efficiency PSUs, FM transmitters have reached their maximum efficiency in terms of physical components. Therefore, it is necessary to rethink the concept of FM broadcasting by turning to software innovations.

This is where SmartFM steps in.

How it works

What if we can reduce dynamically the signal-to-noise ratio without impacting audio perception?

WorldCast Systems developed SmartFM based on this concept. A psychoanalysis algorithm qualifies the robustness of audio content to perturbations. When the signal is robust enough, AI dynamically changes the RF output power in relation to broadcast content. This results in important electricity savings of 10 to 40%.

With SmartFM, broadcasters benefit from:

- Improved transmitter lifetime and MTBF thanks to lower overall temperature
- Reduction of the electrical bill of the cooling equipment due to the reduction of the heat dissipated by the transmitters

\$ REDUCES
electricity costs
 by up to
40%

🌱 REDUCES
CO₂ emissions
 for sustainable
 FM transmission



Electricity consumption of 10kW FM transmitters

- Old Transmitter (55% efficiency)
- Ecreso Transmitter (74% efficiency)
- Ecreso Transmitter with SmartFM



After 10 years

824
 MWh saved with
 SMARTFM

How to broadcast with SmartFM

SmartFM is compatible with our Eceso range of FM transmitters. This includes the new Eceso transmitters as well as the thousands already on the market. To broadcast with SmartFM, simply activate the built-in software and take advantage of the 3-month free trial. Deploying SmartFM on an FM broadcast network does not require any changes in infrastructure or operating habits. Furthermore, SmartFM fully complies with the general ITU-R standardization on all the recommended criteria. .



With SmartFM we save up to 400 tons of CO₂ per year.

Thomas Weiner
COO, Uplink (Germany)

SmartFM compatible transmitters:

- Eceso FM AiO Series: 100W to 1kW
- Eceso FM: 100W to 2000W
- Eceso FM 3kW
- Eceso FM 5/10kW



Try SmartFM for FREE

With all Ecreso transmitters,
benefit from a free 3-month trial.

Contact us to get
started with **SmartFM**



SmartFM is a great contribution to FM radio. This technology operates amazingly, it doesn't show any difference on the coverage and the savings are substantial.

Alejandro Noemi Hauck
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