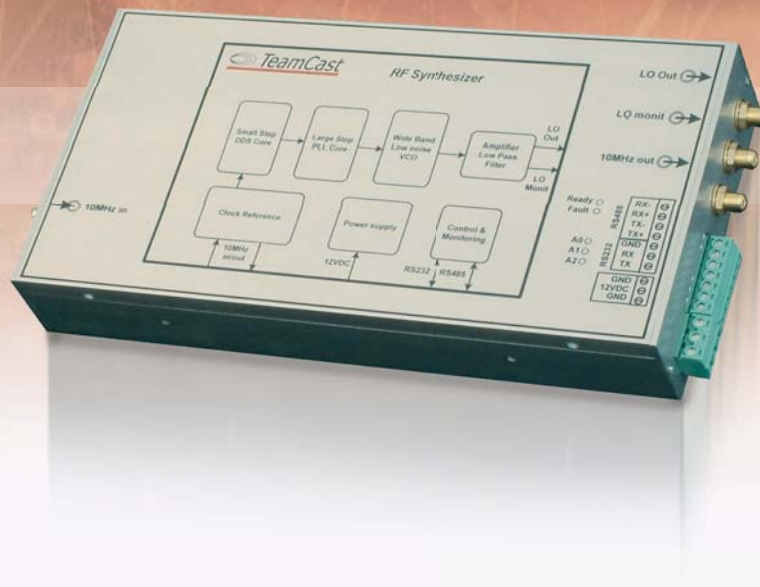


UHF/VHF Synthesizer

SYN-1000:

A high performance frequency synthesis solution for TV transmitters



Description

The SYN-1000 is a general purpose high performance UHF / VHF synthesizer addressing the OEM market and especially the Broadcast transmitter manufacturers.

The SYN-1000 offers very low phase noise figures with a one hertz resolution and a high-stability, providing the ideal synthesizer to pilot a high quality analogue TV transmitter as well as a DTV transmitter.

Thanks to its very modular design, the SYN-1000 could be easily customized to fulfill specific requirements.

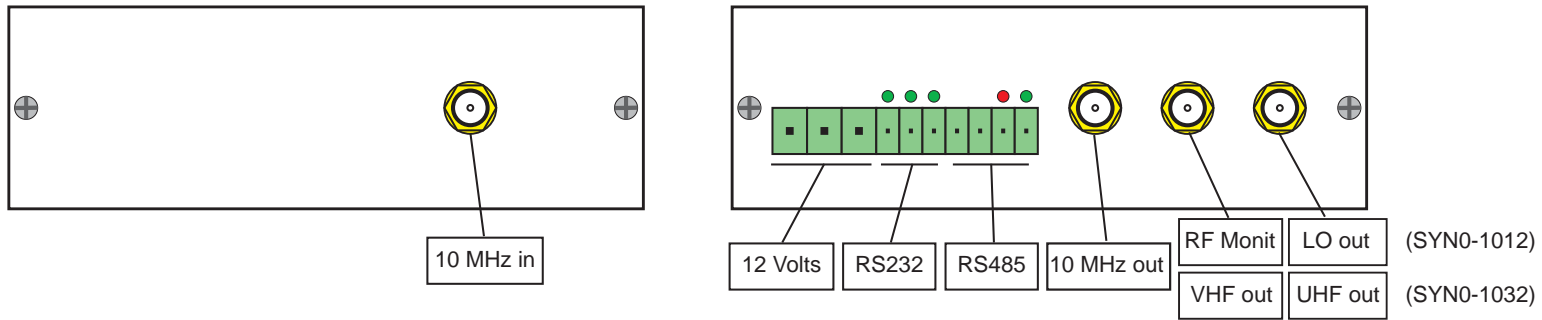
The SYN-1000 belongs to the ModulCast product range delivered by TeamCast to the professional broadcast market. The Modulcast family includes modulators, professional receivers, up-converters and synthesizers, all packaged as ready-to-integrate modules and providing very high-performance core technologies to the broadcast market actors.

Key Features

- UHF or VHF synthesizer for Analogue TV and Digital TV transmitters
- 2 versions available: UHF, UHF+VHF
- Very low phase noise synthesizer
- 1 Hz resolution synthesizer
- External or internal reference operation
- High stability internal reference (OCXO)
- RS232 or RS485 control and monitoring
- Compact size for OEM integration (220 x 110 x 35 mm)
- Single 12V voltage supply

UHF/VHF Synthesizer

Connectors



Specifications

■ Synthesizer

- o Frequency range in UHF version = 430 to 900 MHz
- o Frequency range in UHF+VHF version = 430 to 900 MHz + 30 to 300 MHz
- o 1 Hz resolution

■ Phase Noise

- o Very low phase noise figure
- o Phase noise at 10 Hz: < - 60 dBc/Hz
- o Phase noise at 1 KHz: < - 90 dBc/Hz
- o Phase noise at 100 KHz: < - 120 dBc/Hz
- o Allan variance: < 1.10⁻⁹ / ms

■ LO Output

- o Main output level: + 12 dBm ± 2 dB / 50 Ω
- o Monitoring output level: - 7 dBm ± 3 dB / 50 Ω (not available on 1032)

■ Reference

- o 10 MHz internal OCXO reference
- o External or internal reference operation with automatic lock process
- o External 10 MHz reference level: 0 dBm ± 3 dB ,
- o OCXO stability 2 10⁻⁸ phase noise < -130 dBc / Hz @ 10 Hz

■ Control & Monitoring

- o RS232 & RS485 control port with ASCII protocol

■ Physical

- o Supply voltage: 12 V
- o Compact aluminium package (220 x 110 x 35 mm) with very low thermal resistance
- o Operating temperature range: 0°C to 50°C

Ordering Information

TCM-SYN0-1012	UHF Synthesizer with OCXO ref.
TCM-SYN0-1032	UHF + VHF Synthesizer (OCXO ref.)