

Spectrum Restorer NEW regenerative ATSC gap filler/on-channel repeater (EDOCR) with SFN capability



The Onetastic NEW Spectrum Restorer is a regenerative gap filler/on-channel repeater (EDOCR) with effective echo cancellation and SFN capability.

Newly developed circuit design enables the Spectrum Restorer to subsequently demodulate, error-correct and re-modulate incoming signals in a tremendously fast and effective way.

Even while preserving proper SFN operation, the Onetastic Spectrum Restorer features a very high

output MER regardless of the input signal MER, thanks to the new Onetastic super-fast regenerative processing.

This ensures the utmost flexibility in the network design as well as the best signal quality at any target location - no matter whether they are served by a main transmitter or a remote EDOCR.

The Onetastic Spectrum Restorer features input sensitivity up to -72dBm and effective Echo cancellation up to 40 dB.

MAIN FEATURES

- Compact 1U 19" Rack chassis
- High Adjacent channel rejection
- Low multihop Noise/Error accumulation due to the Equalizer with Short Viterbi correction Slicer
- Input sensitivity up to -72dBm and Echo/signal ratio up to 12dB over the main signal
- 4 µs pre-equalizer and 36 µs post-equalization for multipath and ACI
- Equipment Latency ~24us with Linear precorrection and Pre-equalization, otherwise ~16µs
- Optional internal demodulator with equalizer for regenerative transposers
- Linear precorrection Adaptive Direct Learning FIR with 96 taps
- Non-linear Adaptive Predistortion module with memory effect compensation for Doherty high efficiency PAs.
- SNMP, Web Interface and Touch Screen display



-30 dE

Rank

Start -40.0 µs

Level/dE

0.0

10.0 µs/Div

Peak Values

Time/µs 0.000 6 28.008 7

Stop 60.0 µs

Time/µs 25.644

Level/dB -37.8



30 di

Rank

Start -18.0 µs

Level/dB 0.0

6.0 µs/Div

Peak Values

Time/µs

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ma.

Nus

39.1 dB

4.4 22.0

Stop 42.0 µ

Time/us

Level/dB

Unit