

DIGITAL AND ANALOG EXCITERS



Introduction

The Anywave 5X+ and 9X digital excitors offer the most advanced and highest performing correction technology in the world. The excitors powerful ADPC™ (Adaptive Digital Pre-Correction) algorithm and patented multi-dimensional pre-correction technology delivers RF performance metrics (SNR/MER and Shoulders) never before realized. The Exciter operates as a standard transmitter or as an RF translator across all digital TV standards including DVB-T, DVB-T2, ATSC, ATSC3.0, ISDB-T, DTMB, as well as NTSC and PAL.

Key Features

- ✓ Multi-standard capability: Analog, DVB-T, DVB-T2, ATSC, ATSC3.0, ISDB-T and DTMB
- ✓ All-Band operation (VHF I, VHF III, and UHF)
- ✓ DDRF™ (Direct Digital RF) – achieves near perfect RF performance with innovative automatic broadband balancing technology: MER > 45 dB, shoulder levels < -60 dB, out of band spurious < -60 dB
- ✓ Continuous measurement and real-time display of transmitted signal SNR and Shoulders, receive signal SNR and Strength
- ✓ Control and monitoring with easy to use man machine interface via web, RS232, GPIO, and front panel
- ✓ Options include:
 - ✓ TSoIP input with ASI loop out
 - ✓ Performance & Quality Monitoring
 - ✓ PSIP/TSID Editing
 - ✓ GPS receiver
 - ✓ RF-to-ASI
 - ✓ Static Picture Feature (SPF) in the event of loss of input compliant signal still transmitted

Specifications

Signal Inputs

- DTV TS Inputs: up to 4 Transport Stream inputs with loop out, DVB-ASI and 1 SMPTE310M auto switching Connector: BNC female 75 Ω
- RF Input: Frequency: VHF and UHF
- Connector: BNC female 50 Ω
Level: -85 dBm ~ -15 dBm
- Analog TV Inputs: Composite Video and Stereo Audio inputs

RF Output

- Connector (RF Out): N-Type female 50 Ω
- Frequency: VHF/UHF in steps of 1 Hz, spectrum shifting up to ± 50 KHz
- Level: -25 dBm ~ +5 dBm in steps of 0.05 dB
- Level Stability: $< \pm 0.1$ dB
- Frequency Stability: $< 0.5 \times 10^{-7}$ (with onboard 10MHz REF), $< 0.1 \times 10^{-7}$ (with Int. GPS), or in accordance with the Ext. GPS accuracy
- MER: > 40 dB
- Amplitude Flatness: $< \pm 0.5$ dB
- IMD Shoulder Lvl (± 500 KHz): < -60 dB
- Out of Band Spurious: < -60 dB
- Return Loss: > 15 dB
- Phase Noise (@20 kHz): < -115 dBc/Hz

Linear and Non-linear ADPC™

- Dual Feedback Samples: BNC female 50 Ω
- RF IN B: Feedback Signal Before BPF
- RF IN A: Feedback Signal After BPF
- Feedback level: -35 dBm ~ 0 dBm (suggested value: -15 dBm ~ -5 dBm)
- Adaptive and Automatic Correction: No additional instruments or manual operations required
- Continuous measurement and display of SNR and IMD

High Efficiency: Less than 10 minutes

High Precision:

- 64-bit signal processing
- Over 20,000 independent points of amplitude and phase correction

High Performance:

- Correction of amplitude, phase and group delay
- Up to 10 dB of MER improvement
- Up to 15 dB of shoulder improvement
- In-band flatness: $< \pm 0.5$ dB
- Process up to 7th intermodulation product

Cost Effective
100%

Reliable
100%

Scalable
100%

Dependable
100%

We have your broadcast transmission needs covered
www.anywavecom.net

Anywave Communication Technologies

Email: sales_us@anywavecom.com

Phone: +1 (847) 415 2258

Fax: +1 (847) 415 2112

Address: 100 N Fairway Drive, Suite 128, Vernon Hills, IL 60061

Website: www.anywavecom.net

