AW9200 EXCITER+

(ATSC 3.0/1.0 EXCITER/TRANSLATOR/GATEWAY)

Introduction

The Anywave AW9200 Exciter+ delivers a compact and versatile ATSC 3.0/1.0 dual configuration Exciter/Translator with support for multiple PLPs and sub-frames, TDM/FDM/LDM modes, and MFN/SFN operation. Combined with Anywave's AW9300 Encoder+ Encoder/Signaling Server, this flexible platform provides a complete ATSC 3.0 solution to meet all of the Broadcaster's NextgenTV needs. Deploy ATSC 1.0 now and switch to ATSC 3.0 later with a simple license key. This versatile platform also acts as an innovative ATSC 3.0/1.0 translator, capable of receiving and transmitting ATSC 3.0/1.0 RF signals. With its unique Signaling Information and PSIP Editing options, it modifies signaling information directly at the translator site, saving time, effort, and unnecessary expenses associated with additional gateways. The Anywave AW9200 Exciter+ also incorporates its distinctive STREAM SYNC technology, enabling seamless bit rate adaptation between the gateway and the exciter without requiring a GPS or NTP time reference for non-SFN operation. Additionally, this adaptable platform offers a built-in gateway option that seamlessly accepts ROUTE input, providing enhanced flexibility in content sourcing.

Key Features

- ✓ All-Band operation - VHF I, VHF III, and UHF
- ✓ Supports ATSC 3.0/1.0 standards, with dual-mode operation and ATSC 3.0/1.0 RF Translator modes
- ✓ Flexible architecture allows broadcasters to implement studio/transmitter integrated or split configurations
- ✓ The Anywave AW9200 Exciter+ operates as an ATSC 3.0/1.0 exciter, an ATSC 3.0/1.0 translator, or as an ATSC 3.0 exciter with the built-in gateway in 1RU module
- ✓ The Signaling Information and PSIP Editing option in the Anywave AW9200 Exciter+ modifies signaling information including BSID/TSID, service name, major/minor channel number, etc. - without the need for an additional gateway
- ✓ Implements STREAM SYNC technology - eliminating the need for GPS or NTP equipment synchronization for non-SFN operation
- ✓ DDRF™ (Direct Digital RF) – achieves superior RF performance : MER > 40 dB, shoulder levels < -60 dB, out of band spurious < -60 dB
- ✓ Industry best Phase Noise performance (@20 kHz): < -124 dBc/Hz
- ✓ ADPC™ (Adaptive Digital Pre-Correction) algorithm and patented multi-dimensional pre-correction technology delivers RF performance metrics (SNR/MER and Shoulders) never before realized
- ✓ Remote monitoring and control via web browser and SNMP

Specifications

Signal Input
- 3 x 1GigE RJ-45 ports (2 for STL IP inputs)
- ATSC 3.0 Features: TDM/FDM/LDM, multiple PLPs and sub-frames, SFN/MFN
- ATSC 3.0/1.0 RF Tuner Input (VHF/UHF) - Translator mode, level: -88 dBm ~ +5 dBm, BNC 50 Ω
- 2 x ASI Inputs: auto switching, BNC 75 Ω
- ASI Loop Out: BNC 75 Ω
- GPS Inputs: 1 Antenna SMA 50 Ω, 1 x 1PPS BNC 50 Ω, 1 x 10MHz BNC 50 Ω (built-in internal GPS RCVR)
- Dual Feedback Correction Samples: BNC 50 Ω, feedback level: -35 dBm ~ 0 dBm
- RS232/485: DB9 connector

Signal Output
- RF Out: N-Type 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: < ±0.1 dB
- Frequency Stability: < 0.5 x 10^{-7} (with onboard 10MHz REF), < 0.1 x 10^{-7} (with Int. GPS), or in accordance with the Ext. GPS accuracy

Signal Output (continued)
- MER: 40dB (typical)
- Amplitude Flatness: < ±0.5 dB
- IMD Shoulder Level: < -60 dB
- Out of Band Spurious: < -60 dB
- Return Loss: > 15 dB
- Phase Noise (@20 kHz): < -124 dBc/Hz

Linear and Non-linear ADPC™
- Dual Feedback Samples: BNC female 50 Ω
- Feedback Level: -35 dBm ~ 0 dBm
- Adaptive and Automatic Correction: No additional instruments or manual operations required

High Precision:
- 64-bit Signal Processing
- Over 20,000 independent points of amplitude and phase correction

High Performance:
- In-band Flatness: < ±0.5 dB
- Process up to 7th intermodulation product

Anywave Broadcast Inc

Email: sales@anywaveus.com
Phone: +1 (847) 415 2258
Fax: +1 (847) 415 2112
Address: 100 N Fairway Drive, Suite 130
Vernon Hills, IL 60061
Website: www.anywavecom.net