

UC-450-ATSC-T MODULATOR

The UC-450-ATSC-T Modulator is an 8-VSB ATSC-T Modulator. The unit accepts either SMPTE-310M or DVB-ASI signals as its input, modulates it into an 8-VSB 44.0 MHz IF signal, and outputs an RF 8-VSB signal between the frequency range of 110 to 860 MHz.



- **Compliant with ATSC A/53 standard**
- **Double DVB-ASI inputs and SMPTE-310M inputs**
- **RS coding, Data Field interleaver, Pilot Insertion**
- **Trellis Constellation Coding: 8-VSB**
- **Channel Bandwidth: 6MHz**
- **IF agile from 35MHz to 45MHz with 1Hz step.**
- **RF agile VHF and UHF with step 1Hz**
- **Very high modulation performance: VM, SNR, RF stability, shoulder, etc**
- **External 10MHz reference clock inputs**
- **PID filtering and re-mapping**
- **PSI/SI information puck-up, phase and modification**
- **RJ-45 Ethernet interface introduces remote maintenance, supervision and software upgrade.**
- **Constant Temperature Crystal**
- **Remote Control**

Data input	Socket Interface	75Ω, BNC Comply with EN 50083 ASI and ATSC SMPTE-310M standard. 2 ASI inputs and 2 SMPTE-310M inputs Max bit rate: 19.38Mbps TS Switching: Manuel/Automatic mode
IF Output	Data Format Output Impedance Output Frequency Range Output Level Group Delay Stability of Frequency @ ±3.2MHz IQ Amplitude Imbalance Carrier Suppression Spurious MER	Standard TS stream, 188/204byte 50Ω BNC 30~45MHz (Adjustable) -5dBn (105dBμV) v±0.2dB ±10 ns 1 ppm -50dBc ≤0.02% ≤-55dBc <-60dBc >42dBc

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RF Output

Output Impedance	50Ω NBC
Output Frequency Range	110~860MHz
Output Level	≥0dBm (107dBμV)
Monitor Signal Level	-30+2dBm
Total Frequency Deviation	≥0dBm (107dBμV)
Output Suppression	<-55dBc
Output Level Adjustable Range	≥16dB
	≥80dBc/Hz (@1Kz)
	≥105dBc/Hz (@100Kz)
	≥130dBc/Hz (@100Kz)
Local Oscillation Phase Noise	
Bandwidth	6M

Signal Encoding and Modulating

MER	≥36dB(agile); ≥40dB(Fix)
Attenuation	0~16dB (0.5dB step)
RS Encoding	(207,187)
Trellis Encoding	2/3
Modulation Mapping Constellation	8-VSB
Bandwidth	6M

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