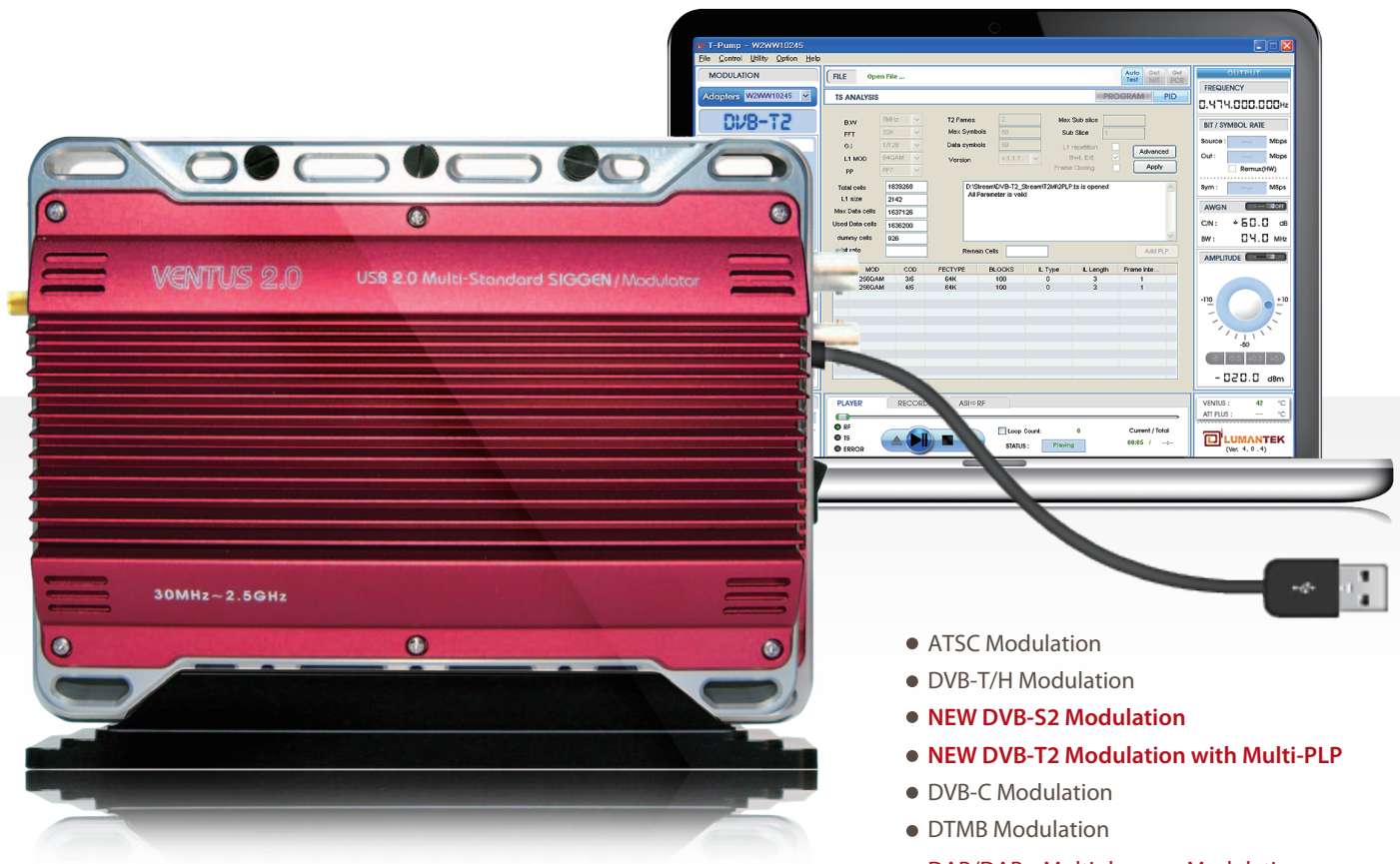


USB 2 Multi-Standard SIGGEN / Modulator

VENTUS 2.0

DVB S2 DVB T2


- ATSC Modulation
- DVB-T/H Modulation
- **NEW DVB-S2 Modulation**
- **NEW DVB-T2 Modulation with Multi-PLP**
- DVB-C Modulation
- DTMB Modulation
- **DAB/DAB+ Multiplexer + Modulation**
- ISDB-T/B Modulations (Full-Seg/One-Seg)
- OpenCable Modulation
- ATSC MDTV Multiplexer + Modulation
- CMMB Multiplexer + Modulation

*Perfect RF Quality on DVB-T2 / S2
supporting from 30MHz to 2.5GHz !*

Key Features

- Versatile Multi-Standards in a single USB 2 portable transmitter and easy upgrade to other standards through on-line service.
- Truly short switching time to another mode.
- Integrated Power Amplifier & Attenuator : -110 dBm ~ +7 dBm(30MHz ~1GHz), -110dBm ~ +3dBm(1GHz~2.5GHz), 0.1 dB step
- Low phase noise and high MER.(43dB)
- Latest User-friendly application and API (design your own application) can be downloaded from Web based download Center freely.
- Real-time signal with selectable Modulation and coding parameter.
- Integrated white noise generator (AWGN).
- TS stream player, TS Recorder, TS Analyzer.
- Remote Control via USB 2.0 from general Laptop. (Max 4 'VENTUS' units can be operated from one PC).
- Low power consumption.
- Real-Time Modulation (ASI In to RF Out) :ATSC, DVB-T/H,
- Auto temperature compensation.
- Fan-less heat dissipation design.
- High precision synthesizer (OCXO)

System Specification of VENTUS 2.0

Parameter	Conditions	Values
RF Signal	Frequency Range	30MHz to 2.5GHz
	Frequency Step	1 Hz
	Output Power	-110dBm~+7dBm(30MHz~1GHz) -110dBm~+3dBm(1GHz~2.5GHz) / 0.1dB step
	Output Power Accuracy	< +1dB
	Spectral Purity	< -60dBc@Full Bandwidth
Modulation Modes	Terrestrial DTV	DVB-T / DTMB / SDB-T fullseg / ATSC / DVB-T2
	Cable DTV	DVB-C / Opencable
	Satellite DTV	DVB-S / DVB-S2
	Mobile DTV	CMMB / ATSC-MDTV / DVB-H / T-DMB / ISDB-T 1seg
	Digital Sound Broadcasting	DAB / DAB+
	Multiplexer	CMMB Multiplexer / ATSC-MDTV Multiplexer
TS Generator	ASI OUT	Transport Stream Play
AWGN	All standard mode	2 Times Signal Bandwidth
TS Recorder	ASI IN	Transport Stream recording / real-time modulation
System Platform	RF Output	SMA 50 Ω
	DVB-ASI Output	BNC 75 Ω
	DVB-ASI Input	BNC 75 Ω
	Control	USB 2.0
	Power	90 VAC ~ 240 VAC, 50/60Hz
	Dimensions	170mm x 139mm x 71mm (170x139x57 atten. excluded)
	Weight	2.33 Kg (1.75Kg Atten. Excluded)

Ordering information of VENTUS 2.0

Designation	Quote Code
Base Unit	
Base Unit (Frequency: 30MHz ~ 900MHz)	LMTV2-MF
Extensions	
Frequency UPGRADE, 30 MHz ~ 2.5 GHz	LMTV2-ATH
Step Attenuator, +7 dBm ~ -110 dBm (30MHz ~ 900MHz)	LMTV2-ATH
Step Attenuator UPGRADE, +3 dBm ~ -110 dBm (900MHz ~ 2.5GHz)	LMTV2-ATH
AWGN Noise Generator	LMTV2-AG
T-SCOPE Steam Analyzer	LMTV-TSO

Designation	
Modulation systems for LUMANTEK VENTUS 2	
Coder ISDB-T	LMTV-IS
Coder DTMB	LMTV-DB
Coder DAB / DAB+ / T-DMB	LMTV-DA
Coder ATSC	LMTV-8V
Coder DVB-T/H	LMTV-DT
Coder DVB-C	LMTV-DC
Coder J.83/B, OpenCable, QAM-B	LMTV-QB
Coder CMMB with Muxer	LMTV-CM
Coder ATSC Mobile DTV full Simulation Package	LMTV-AM
DVB-S/S2 Coder	LMTV-S2
DVB-T2 Coder with Multi PLP T2 MI	LMTV-T2

Designation	Quote Code
Modulation Packages	
Option package Terrestrial & Cable TV (includes DVB-T/H, DVB-C, ISDB-T, DTMB, ATSC, J.83/b)	LMTV2-PK1
Option package Mobile TV (with Muxer) (includes LMTV2-PK2, CMMB and ATSC-M/H Muxer)	LMTV2-PK3
Option Package T2/S2 (includes DVB-T2, DVB-T, DVB-S2, DVB-S, DVB-C)	LMTV2-PK4
Option package Audio Broadcasting (includes DAB/ DAB+/ T-DMB coder and Multiplexer)	LMTV2-PK5



All-in-one DMB/DAB/DAB+ Ensemble Multiplexer

Ventus 2.0 Option Upgrade

WORLD



Support dynamic reconfiguration

Support file format

- ETI structure data(*.eti)
- MP1L2 elementary stream data(*.mp2)
- AAC elementary stream data(*.aac)
- M4onM2(MPEG-4 on MPEG-2) TS(*.ts)

Editable element

- DAB modes : I, II, III, IV
- Ensemble : ID, name
- Service : ID, name, link info, announcements, program type
- Component : SCID, SCIDs, name, language
- Sub-channel: ID, protection mode, FEC scheme
- Insertion extra FIG data

Compatibility

- ETSI EN 300 401 v1.4.1
- Main DAB standard



DAB/DAB+/DMB RF field Monitor & Analyzer

USB Type Portable On-Air Analyzer



General Information

- USB powered portable applications support
- DAB Ensemble Status Diagnostics
- RF logging/reporting, graphical signal level status
- Real time recording of sub channels for off-line applications
- FIC, MPEG2-TS/MPEG4 in-depth Analysis
- A/V service monitoring (H.264, BSAC/AAC+)
- Data service monitoring (DLS, Slide Show, BWS, BIFS, TPEG)
- Reconfiguration information display
- Field monitoring with GPS
- Services PC player for Musicam/DAB+ Audio, A/V(H.264, BSAC/AAC+), BIFS, TPEG
- SNMP Trap and SMTP Email support for Alarm
- Auto streaming function

Player

- DAB+, Musicam Audio Decoding
- A/V (H.264, BSAC/AAC+) with, or without BIFS
- MOT (BWS, Slide Show, DLS) data play
- TPEG data play



T-SCOPE

MPEG-2 Transport Stream Analyzer

High Performance MPEG-2 TS Analyzing Solution without the high price tag!

A MPEG-2 Transport Stream analyzer for real-time analyzing, monitoring and decoding for VENTUS 1.0. The T-SCOPE is compatible with ATSC, DVB-C, DVB-S, DVB-T and OpenCable modulations. T-SCOPE is the best solution for OEM manufacturers who seek the best of the best for designing and verifying digital TV equipment.

Key Features

- ATSC, DVB-C, DVB-S, DVB-T and OpenCable DTV standards compliant.
- Multiple physical layer interface.
- Real-time and offline RF analysis: BER, MER, EVM, RF power and constellation.
- ETSI TR 101 290 Priority with real-time 3-stage error monitoring reporting and error logging.
- Diagnostic and verification of MPEG designs.
- PCR & PTS analysis, arrive time graphing, measurement display and jitter analysis.
- Triggered recording.
- Data rate analysis.
- Table and packet views.
- SI/PSI & PSIP view and interval analysis.
- CAS view: ECM and EMM repetition rate and update time.
- PES header analysis.
- Real-time A/V decoding.

