

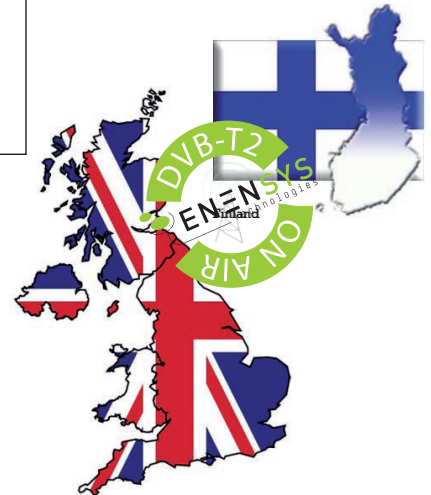
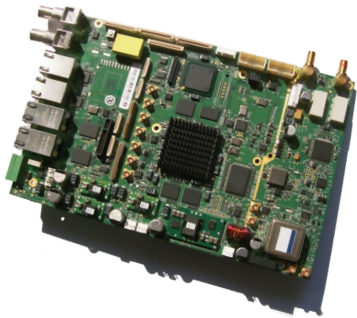
DVB[®] T2 OEM Modulator

The quickest way to be at the DVB-T2 RendezVous !

Address the DVB-T2 markets with ENENSYS OEM reference design



world first commercial deployment
in UK and Finland



Selected by major European broadcasters as the DVB-T2 reference, NetMod-DVB-T2 full in-house solution is now available as OEM, allowing a fast time-to-market to this new efficient standard.

NetMod-DVB-T2 is the only product on the market that can be easily and quickly customized on demand. As for UK national DVB-T2 deployment, many customers already put their trust in ENENSYS, showing their confidence in the most advanced DVB-T2 modulator on the market.

NetMod-DVB-T2 modulator provides a cost effective and high quality solution for live DVB-T2 broadcast. This modulator is the state-of-the-art HW design, benefiting from ENENSYS's years of experience in the digital broadcast network solutions design. Available either as an OEM board or complete OEM 19" chassis, NetMod-DVB-T2 modulator has been developed to be easily and quickly integrated in any kind of platform, as well as designed to fully support the DVB-T2 standard (Mono & Multi-PLP, MISO, PAPR reduction, T2-MI, Digital Pre Corrections, etc...).

Applications

- Rebranded standalone modulator
- Transmitter exciter
- Combined digital equipment requiring a RF transmission (Repeater, Gap-filler)

Key Points

- Full in-house solution including IP Core
- Performant and future proof platform
- Fully compliant with DVB-T2 standard (active participation to DVB forum and test-fests)
- Field test proven (Ofcom pilot)
- Selected by chipset and STB manufacturers
- Platform evolution through firmware upgrades
- High grade IF or RF outputs
- Outstanding MER, phase noise and stability
- Intuitive and customizable Graphical User Interface
- SFN adaptation (T2-MI)
- Support of Multi-PLP, MISO, PAPR Reduction, etc...
- Linear and Non-Linear Digital Pre-Corrections (DPC)
- High quality internal clock

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Output characteristics

RF Outputs	Main RF output Monitoring RF output 100 MHz - 870 MHz (step 1 Hz) +2 to -60 dBm (step 0,1dB)
MER	Over 42 dB in the whole band
Shoulders	Over 55 dB
IF Outputs	Main IF output Monitoring IF output 20 MHz - 85 MHz (step 1 Hz) 0 to -40 dBm (step 0,1dB)
MER	Over 45 dB in the whole band
Shoulders	Over 55 dB

Modulation

PLP Constellations	QPSK, 16QAM, 64QAM, 256QAM
L1 post constellations	BPSK, QPSK, 16QAM, 64QAM
Constellation rotation	Normal, Rotated
Channel bandwidth	1.7, 5, 6, 7 or 8 MHz
Guard Interval	1/128, 1/32, 1/16, 19/256, 1/8, 19/128, 1/4
FFT mode	1k, 2k, 4k, 8k, 16k, 32k (normal and extended)
Code rate	1/2, 3/5, 2/3, 3/4, 4/5, 5/6
FEC	Short (16k), Normal (64k)
Pilot pattern	from PP1 to PP8
Network type	MFN and SFN
Test mode	Single tone, PRBS & MPEG generator, Central carrier cancellation
Multi-standard	Available in DVB-T/H and DTMB

Clocks and Synchronization

Inputs	10 MHz, 1 PPS and optionnal built-in GPS
Internal clock	OCXO (Oven Controlled Oscillator)
Internal clock precision	0.5 ppb (over one day)
Internal clock stability	2.10-8 per year

Control & management

Web (HTTP)	10/100 Base-T, Rich client interface
System Administration	Full SNMP v2, RS232 (board)

	Board	19" chassis
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Output interfaces

IF or RF Outputs	2 x SMA 50 Ω	2 x SMA 50 Ω
10 MHz external clock	1 x MCX 50 Ω	1 x BNC 50 Ω
1PPS external clock	1 x MCX 50 Ω	1 x BNC 50 Ω

Input interfaces

T2-MI or TS inputs (ASI)	2 x MCX 50 Ω	2 x BNC 50 Ω
T2-MI over IP	1 x Gigabit ethernet	1 x Gigabit ethernet
10 MHz external clock	1 x BNC 50 Ω	1 x BNC 50 Ω
1PPS external clock	1 x BNC 50 Ω	1 x BNC 50 Ω

Characteristics

Height/Width/Depth (mm)	25/150/250 mm	43/440/283 mm
Power supply	+12v DC	100-240v AC

Ordering Information

Modulator	NetMod-DVB-T2-RF (or IF) Board	NetMod-RF (or IF)
Optional internal GPS	NetMod-GPS	NetMod-GPS

Also available in ENENSYS DVB-T2 portfolio:

- NN6 T2-Gateway: DVB-T2 encapsulator / SFN adaptor
- DiviCatch RF T2: DVB-T2 pocket analyzer
- DiviCatch T2-MI: T2 Modulator Interface analyzer
- CastXplorer RF T2: DVB-T2 network probe
- Discovery DVB-T2 bundle (Modulator, T2 Gateway, receiver)



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