

► ClassA HEADENDS

«MTI» — QPSK-COFDM Transmodulation Equipment

QPSK-COFDM Transmodulators

Model		MTI-900	MTI-800	
Reference		4098	4099	
Reception		DVB-S (QPSK)	DVB-S (QPSK)	
Remote mode		Yes	Yes	
Transport Stream (TS) processing		Yes (see FUNCTIONS below)	Yes (see FUNCTIONS below)	
Common Interface (EN 50221)		Yes (Conax, Cryptoworks, Irdeto, KeyFly, Mediaguard, Nagravision, Viaccess, ...)	No	
Maximum number of de-encrypted services		Variable (CAM depending)	—	
Input Section (QPSK)	Standard	EN 300 421		
	Input frequency	MHz	950 - 2150	
	Input level	dBm	-65 ... -25	
	Input loop-through gain	dB	0 (±1)	
	AFC pull-in range	MHz	± 5	
	Input symbol rate	MS/s	2 ... 45	
COFDM Re-modulation Section	Data processing	EN 300 744		
	Operation modes	2K ,, 4K (DVB-H) ,, 8K		
	Constellation	QPSK ,, 16QAM ,, 64QAM		
	Code rate	1/2 ,, 2/3 ,, 3/4 ,, 5/6 ,, 7/8		
	Guard interval	1/4 ,, 1/8 ,, 1/16 ,, 1/32		
	In-depth interleaving (only on DVB-H)	Applicable (on 2K and 4K modes)		
	MER (Modulation Error Ratio)	dB	> 38 (typ.)	
Output Section (COFDM)	Selectable output channel located between:	MHz	47 - 862	
	Bandwidth	MHz	5 (DVB-H) ,, 6 ,, 7 ,, 8	
	Adjustable output level	dBμV	65 to 80	
	Frequency stability	ppm	≤ ±10	
	Output loop-through loss	dB	1.1	
	Spurious in band	dBc	< -50	
	Broadband noise (ΔB=8MHz)	dBc	< -75	
General	Supply voltage	Vdc	+12	
	Consumption	mA	600 (w/o CAM) ,, 740 (with CAM)	600
	Operating temperature	°C	0 ... +45	
	Input RF connector type		(2x) female F	
	Output RF connector type		(2x) female F	
	DC connector type		"banana" socket	
	CAM entrance		slot	—
	Programming interface		RS 232 / DB-9	
	IKUSUP bus connector		(2x) 4-pin socket	
	Dimensions	mm	230 x 195 x 32	

FUNCTIONS OF THE TS PROCESSING

- Bit Rate adaptation with PCR restamping
- Adaptation of NIT table
Adaptation to the particular adjustments of the headend is automatic. Name and identifier of the new network can be edited.
- Service and CA blockade
Blockade is at service level and at conditional access level. Automatic regeneration of PAT, SDT and CAT tables.
- TS monitoring
Usage level of the Transport Stream —percentage of null packets— is presented along the programming process.

Abbreviations

CA	: Conditional Access
CAT	: Conditional Access Table
NIT	: Network Information Table
PAT	: Program Association Table
PCR	: Program Clock Reference
SDT	: Service Description Table
TS	: Transport Stream

- The module is packed with:
 - 2 F plug bridges, 64 mm length, for input tap line and output coupling line.
 - 1 DC plug bridge, 53 mm length, for connection of +12 VDC voltage.