

# TDH digital QAM - QPSK to QAM

**TDH QPSK to QAM** module receives a QPSK channel (TV-program package) located in the sat-IF band, and remodulates it in QAM format on a 5-9 MHz channel located within the RF frequency band.

- Output frequency ranges: 120-306 or 306-858 MHz
- Input frequency range: 950-2150 MHz
- Programmable LNB control on each module
- Modulation: 16, 32, 64, 128, 256 QAM
- Adjustable symbol rate (TDH 732 & TDH 733)
- Multi language menu



TDH QAM module

## Technical data TDH - QPSK/QAM modules

TYPE	DVB-C master TDH 730C		DVB-C master TDH 731C		DVB-C master TDH 732C		DVB-C master TDH 733C	
	Norm	TDT	TDT	TDT	-adj. symbol rate	-adj. symbol rate	-adj. symbol rate	-adj. symbol rate
Part No.		490730	490731	490731	490732	490732	490733	490733
<b>Modulator type</b>		QAM	QAM	QAM	QAM	QAM	QAM	QAM
<b>Input frequency range</b>	MHz	920 - 2150	920 - 2150	920 - 2150	920 - 2150	920 - 2150	920 - 2150	920 - 2150
<b>Input level *</b>	dBμV	45...84	45...84	45...84	45...84	45...84	45...84	45...84
<b>Return loss</b>	dB	>10	>10	>10	>10	>10	>10	>10
<b>Aerial input</b>	SAT	F	F	F	F	F	F	F
<b>Aerial loop-through</b>	SAT	Yes/F	Yes/F	Yes/F	Yes/F	Yes/F	Yes/F	Yes/F
<b>Demodulator</b>								
<b>Type</b>		QPSK	QPSK	QPSK	QPSK	QPSK	QPSK	QPSK
<b>Symbol rate</b>	Mbps	2-40 (SCPC/MCPC)	2-40 (SCPC/MCPC)	2-40 (SCPC/MCPC)	<b>Adjustable</b>	<b>Adjustable</b>	<b>Adjustable</b>	<b>Adjustable</b>
<b>Viterbi decoder</b>		1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8	1/2, 2/3, 3/4, 5/6, 7/8
<b>Reed Solomon decoder</b>		204, 188, t=8	204, 188, t=8	204, 188, t=8	204, 188, t=8	204, 188, t=8	204, 188, t=8	204, 188, t=8
<b>Modulator</b>								
<b>Output mode</b>		QAM 16, 32, 64, 128, 256	QAM 16, 32, 64, 128, 256	QAM 16, 32, 64, 128, 256	QAM 16, 32, 64, 128, 256	QAM 16, 32, 64, 128, 256	QAM 16, 32, 64, 128, 256	QAM 16, 32, 64, 128, 256
<b>Output control</b>		Normal, inverted, random	Normal, inverted, random	Normal, inverted, random	Normal, inverted, random	Normal, inverted, random	Normal, inverted, random	Normal, inverted, random
<b>Output frequency range</b>	MHz	<b>306 - 858</b>	<b>120 - 306</b>	<b>120 - 306</b>	<b>306 - 858</b>	<b>306 - 858</b>	<b>120 - 306</b>	<b>120 - 306</b>
<b>Output level</b>	dBμV	97	97	97	97	97	97	97
<b>LNB control 13/18 volt - 0/22 kHz</b>	mA	200	200	200	200	200	200	200
<b>Symbol rate</b>	Mbaud	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0	< 7.0
<b>Roll-off factor</b>	%	15	15	15	15	15	15	15
<b>FEC block code</b>		RS (204, 188)	RS (204, 188)	RS (204, 188)	RS (204, 188)	RS (204, 188)	RS (204, 188)	RS (204, 188)
<b>Scrambling</b>		DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429
<b>Interleaving</b>		DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429	DVB ETS 300429
<b>Carrier suppression</b>	dB	>40	>40	>40	>40	>40	>40	>40
<b>C/N</b>	dB	>38	>38	>38	>38	>38	>38	>38
<b>MER</b>	dB	>35	>35	>35	>35	>35	>35	>35
<b>IQ imbalance</b>	Dgr	<1	<1	<1	<1	<1	<1	<1
<b>Output impedance</b>	Ohm	75	75	75	75	75	75	75
<b>Return loss (MOD OUT)</b>	dB	>10	>10	>10	>10	>10	>10	>10
<b>Temperature, operation</b>	°C	-10..+50	-10..+50	-10..+50	-10..+50	-10..+50	-10..+50	-10..+50
<b>Weight - standard module</b>	kg	0.45	0.45	0.45	0.45	0.45	0.45	0.45
<b>Dimensions (H x D x W)</b>	mm	150 x 230 x 50	150 x 230 x 50	150 x 230 x 50	150 x 230 x 50	150 x 230 x 50	150 x 230 x 50	150 x 230 x 50
<b>Remarks</b>		* Digital measuring - DCP			With stuffing		With stuffing	