

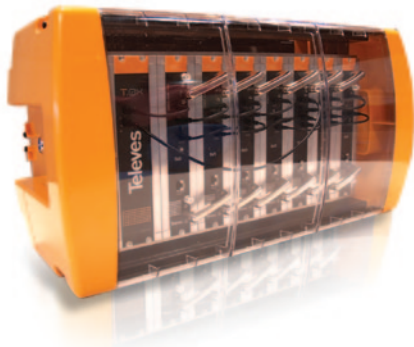
T.OX SERIES



TWIN TRANSMODULATORS WITH REMULTIPLEXING TWO OUTPUT MUX PER MODULE



REF. 564301 & 564401



ENERGY EFFICIENCY, OPTIMUM PERFORMANCE AND THE MOST EFFICIENT SPECTRUM RANGE

These new products (564301, 564401) receive signals from three transponders (two of them having the same band and polarity), and generate two muxes with content from any of these transponders.

If you use a CAM and card to decode services, it can be placed either at the output of any of the demodulators or in the multiplexed transport. It also has a SAFE DCY function to avoid CAM overflow in case new PIDs are found.

✓ Product Highlights

- **TWIN** output signal (two muxes) fully configurable.
- Combined **LCN and SID edition** in both muxes. It avoids retuning TVs when updating the channel line-up.
- **DiSEqC**.
- **Configurable position** of the CAM card.

✓ Product Range

REF.	DESCRIPTION	EAN 13
564301	T.OX DVBS2-COFDM CI TWIN MUX 3TP(2SAT):2CH	8424450172520
564401	T.OX DVBS2-QAM CI TWIN MUX 3TP(2SAT):2CH	8424450170304

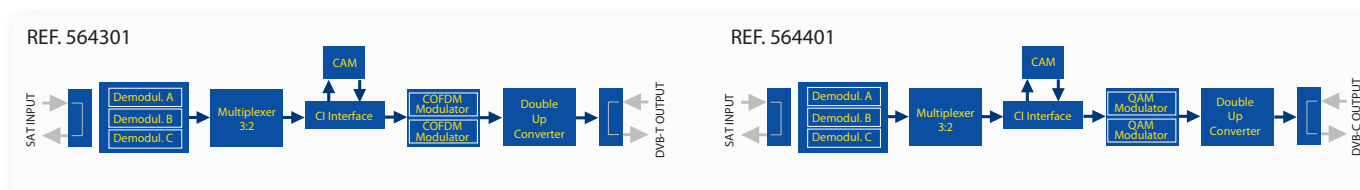
TWIN TRANSMODULATORS WITH REMULTIPLEXING

TWO OUTPUT MUXE PER MODULE

✓ Main Features

- Remote monitoring and configuration **via CDC**.
- The installer can configure the output services as well as **delete any specific PID** from any of them.
- It provides information about the of **useful rate of every input service** and shows the output channel occupancy.

✓ Block Diagram



✓ Technical Specifications

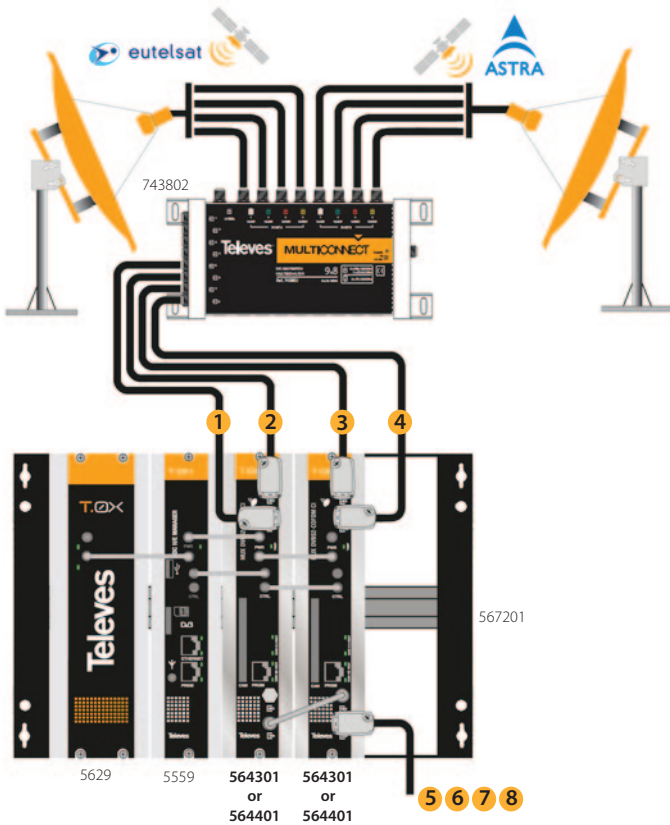
SAT Demodulator	Input frequency	MHz	950 - 2150	Through losses (tip.)	dB	< 1,5
	Symbol rate	Mbaud	2 - 45	Modulation	DVB-S2	QPSK, 8PSK
	Frequency step	MHz	1		DVB-S	QPSK
	Input/Output connectors	type	"F" female	Internal FEC	LDPC	9/10, 8/9, 5/6, 4/5, 3/4, 2/3, 3/5, 1/2
	Input impedance	ohm	75	External FEC		Bose-Chaudhuri-Hocquenghem
	LNB Powering	Vdc/KHz	13-17- OFF / 22KHz (ON-OFF)	Roll-off factor	%	20, 25, 35
	SAT selection (DISEqC)		A, B, C, D	Input R.O.E. (min.)	dB	10
QAM Modulator (Ref. 564401)	Modulation format	QAM	16, 32, 64, 128, 256	Scrambling		DVB ET300429
	Symbol rate	Mbaud	1 - 7,2 (selec.)	Interleaving		DVB ET300429
	Roll-off factor	%	15	Bandwidth (max.)	MHz	8,3
	Error correction		Reed Solomon (188, 204)	Output spectrum (selec.)		Regular / Inverted
COFDM Modulator (Ref. 564301)	Modulation format		QPSK, 16QAM, 64QAM	Scrambling		DVB ET300744
	Guard interval		1/4, 1/8, 1/16, 1/32	Interleaving		DVB ET300744
	FEC		1/2, 2/3, 3/4, 5/6, 7/8	Cell_id		Selectable
	Bandwidth	MHz	7, 8	Output spectrum (selec.)		Regular / Inverted
RF Output	Output frequency (selec.)	MHz	46 - 862	Through losses (tip.)	dB	< 1,5
	Frequency steps	564401	250	Return losses (tip.)	dB	> 12
		564301	166 - 125 (selectable by the user)			
	Max. output level (selec.)	dBμV	80 ±5	Input/Output connectors	type	"F" female
Attenuation (program.)	dB	> 15	Output impedance	ohm	75	
General	Consumption 24Vdc (with signal)*	mA	530 (564301) 540 (564401) => Not powering the LNB and no inserted CAM			
			630 (564301) 640 (564401) => Not powering the LNB and inserted CAM			
			880 (564301) 890 (564401) => One powered LNB and inserted CAM			
			1130 (564301) 1140 (564401) => Two powered LNBs and inserted CAM			
Protection index			IP20			

* Consumption measured using an input signal. The consumption of both CAM and LNB are related to the maximum obtained, but in any case they depend on the system's CAM and LNB.

The described technical specifications are defined for a room temperature of 45C degrees (113 F degrees). For higher temperatures, an artificial ventilation system must be used.



✓ Example of application



- In the example, the first module receives signals from Hotbird and Astra in two bands (1 VL and 2 VL) and the second module receives signals from Eutelsat and Astra (3 VH and 4 HH).
- MUX 1 and 2 (5 and 6 in the drawing) contain services from different bands (and polarities) of both Hotbird 13°E and ASTRA 19°E coming from inputs 1 and 2.
- MUX 3 and 4 (7 and 8 in the drawing) contain services from different bands (and polarities) of both Hotbird 13°E and ASTRA 19°E coming from inputs 3 and 4.
- The headend management module (5559) allows you to remotely change the programs that are made available in the system. This is done via either the TOX Suite SW (PC) or Android App installed in a smartphone or tablet. Since the modules incorporate SID control any changes won't require the TVs to be re-tuned since new services will automatically replace the existing ones.

DVB-S/S2 Inputs

1	2	3	4																																																																																				
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