Triax passive optical splitter

- for building passive optical networks

The Triax fibre optical TOS passive splitter/coupler units let you build passive optical networks (PON) in virtually any size and split ratio.

Using any combination of the 2, 4 and 8-way optical splitters, passive optical networks can be realized that satisfy almost any requirement for network coverage. Using the TOS splitters in tandem with the optical LNB products the link budget allows splitting into 32 ways.

- ✓ For singlemode systems
- ✓ Dual window use (1310nm/1550nm)
- ✓ Uniform splitting ratio (1x2: 50/50%)
- Excellent environmental & mechanical stability
- ✓ Low insertion loss
- With 1 meter cables, FC/PC pre-connected



TOS 02 optical splitter



TOS 04 optical splitter



TOS 04 optical splitter

Technical data

Туре		TOS 02	TOS 04	TOS 08
Art. No.		307632	307634	307638
Number of inputs		1	1	1
Number of output		2	4	8
Pre-connected with (in and out)		FC/PC	FC/PC	FC/PC
Cable length	m	1	1	1
Coupling ratio	%	50/50	25/25/25/25	8x12,5
Insertion loss (typ.)	dBm	3,8	6,8	10,6
Wavelength	nm	1310/1550	1310/1550	1310/1550
Wavelength bandwidth	nm	± 40	± 40	± 40



Triax virtual optical converter

- IF Receiver Nodes for TWIN, QUAD and QUATTRO use signal

The virtual converter receives an optical signal via a passive optical network (PON) from the optical LNB. It then performs a de-stacking frequency conversion, and outputs two or four universal lines for driving two or four individual set top boxes. A QUATTRO version presents the four individual polarities on separate coax outputs and is suited to drive a normal multi switch system. This effectively eliminates the limitations on cable lengths and number of users everyone has had to live with from the birth of satellite reception.

- Converts optical SAT-IF signals into IF
- Solutions for both direct STB connection and multi switch use.
- Supports from single direct connection and up to a 32 way passive optical network
- ✓ Requires an optical LNB (TOL32) front-end



TVC 02 virtual optical converter



TVC 04 virtual optical converter



TVQ 04 virtual optical converter

Technical data

Art. No. 307620 307622 307624 Input parameters	Туре		TVC 02	TVC 04	TVQ 04
RF frequency range, vertical polarities GHz 0.95 - 3.0 0.95 - 3.0 0.95 - 3.0 RF frequency range, horizontal polarities GHz 3.4 - 5.45 3.4 - 5.45 3.4 - 5.45 Optical RLR (min.) db 20 20 20 Optical power, small PON setting (min.)/(max.) dBm -13/0 -13/0 -13/0 Optical power, large PON setting (min.)/(max.) dBm -60/-20 -60/-20 -60/-20 Nominal satellite transponder levels (min.)/(max.) dBm -80/-40 -80/-40 -80/-40 Satellite transponders 120 120 120 120 Input connector FC/PC FC/PC FC/PC FF frequency Range (Output Parameters) - 1100-2150 1100-2150 Vertical high band (converted from 1.95 to 3.0 GHz) MHz 1100-2150 1100-2150 Horisontal low band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 Vertical high band (converted from 0.410 GHz) MBz 1 <th>Art. No.</th> <th></th> <th>307620</th> <th>307622</th> <th>307624</th>	Art. No.		307620	307622	307624
RF frequency range, horizontal polarities GHz 3.4 - 5.45 3.4 - 5.45 3.4 - 5.45 Optical Optical RLR (min.) db 20 20 20 Optical power, small PON setting (min.)/(max.) dBm -13/0 -13/0 -13/0 Optical power, small PON setting (min.)/(max.) dBm -60/-20 -60/-20 -60/-20 Nominal satellite transponder levels (min.)/(max.) dBm -60/-20 -60/-20 -80/-40 -80/-40 Satellite transponders 120 120 120 120 120 Input connector FC/PC FC/PC FC/PC FC/PC RF Frequency Range (Output Parameters) HHz 1100-2150 1100-2150 1100-2150 Horisontal high band (converted from 4.4 to 5.45 GHz) MHz 1100-2150 1100-2150 1100-2150 Horisontal low band (converted from 0.95 to 1.95 GHz) MHz 100-2150 1100-2150 1100-2150 Horisontal low band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 1 1	Input parameters				
Optical Control Control <t< td=""><td>RF frequency range, vertical polarities</td><td>GHz</td><td>0.95 – 3.0</td><td>0.95 – 3.0</td><td>0.95 – 3.0</td></t<>	RF frequency range, vertical polarities	GHz	0.95 – 3.0	0.95 – 3.0	0.95 – 3.0
Optical RLR (min.) db 20 20 20 Optical power, snall PON setting (min.)/(max.) dBm -13/0 -13/0 -13/0 Optical power, large PON setting (min.)/(max.) dBm -60/-20 -60/-20 -60/-20 Nominal satellite transponder levels (min.)/(max.) dBm -80/-40 -80/-40 -80/-40 Satellite transponders 120 120 120 120 Input connector FC/PC FC/PC FC/PC RF Frequency Range (Output Parameters) 1100-2150 1100-2150 1100-2150 Vertical high band (converted from 4.4 to 5.45 GHz) MHz 1100-2150 1100-2150 Vertical high band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 Return loss (min.) dB 1 1 1 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dB 10 10 10 Inple across 30	RF frequency range, horizontal polarities	GHz	3.4 - 5.45	3.4 - 5.45	3.4 - 5.45
Optical power, small PON setting (min.)/(max.) dBm -13/0 -13/0 -13/0 Optical power, large PON setting (min.)/(max.) dBm -18/-14 -18/-14 -18/-14 Aggregate equivalent RF power (min.)/(max.) dBm -60/-20 -60/-20 -60/-20 Nominal satellite transponder levels (min.)/(max.) dBm -80/-40 -80/-40 -80/-40 Satellite transponders 120 120 120 120 Input connector FC/PC FC/PC FC/PC RF Frequency Range (Output Parameters) HHz 1100-2150 1100-2150 1100-2150 Vertical high band (converted from 3.4 to 5.45 GHz) MHz 1950-1950 950-1950 950-1950 Vertical high band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 10 10 Gain ripple across band (max.) dB 4 4 4 4 Gain ripple across 30MHz (max.) dBm +10 +10 +10 Isolati	Optical				
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Optical RLR (min.)	db	20	20	20
Aggregate equivalent RF power (min.)/(max.)dBm-60/-20-60/-20-60/-20Nominal satellite transponder levels (min.)/(max.)dBm-80/-40-80/-40-80/-40Satellite transponders120120120Input connectorFC/PCFC/PCFC/PCRF Frequency Range (Output Parameters)1100-21501100-21501100-2150Horisontal high band (converted from 1.95 to 3.0 GHz)MHz1100-21501100-21501100-2150Horisontal low band (converted from 0.95 to 1.95 GHz)MHz950-1950950-1950950-1950Vertical high band (converted from 0.95 to 1.95 GHz)MHz950-1950950-1950950-1950Return loss (min.)dB10101010Gain ripple across 30MHz (max.)dB444Gain ripple across 30MHz (max.)dB110+10+10Isolation (unwanted path to selected path)dB-25-25-25OUP3 (min.)dBm-60-606060Lo power (max.)dBm-60-606060Lo power (max.)dBm-60-606060Lo power (max.)dBm-60-60-6060Lo power (max.)dBm-60-606060Lo power (max.)dBm-60-606060Lo power (max.)kHz320320320320Output connectors2x and 4 x F-female50-6060 <t< td=""><td>Optical power, small PON setting (min.)/(max.)</td><td>dBm</td><td>-13/0</td><td>-13/0</td><td>-13/0</td></t<>	Optical power, small PON setting (min.)/(max.)	dBm	-13/0	-13/0	-13/0
Nominal satellite transponder levels (min.)/(max.) dBm -80/-40 -80/-40 -80/-40 Satellite transponders 120 120 120 120 Input connector FC/PC FC/PC FC/PC FC/PC RF Frequency Range (Output Parameters) 1100-2150 1100-2150 1100-2150 1100-2150 Vertical high band (converted from 1.95 to 3.0 GHz) MHz 1100-2150 1100-2150 1100-2150 Horisontal low band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 1 1 1 1 Gain ripple across band (max.) dB 4 4 4 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dBm -65 (min.), -25 (max.) OIP3 (min.) OIP3 (min.) dBc -25 -25 -25 Output frequency stability/accuracy (max.) dBm <td>Optical power, large PON setting (min.)/(max.)</td> <td>dBm</td> <td>-18/-14</td> <td>-18/-14</td> <td>-18/-14</td>	Optical power, large PON setting (min.)/(max.)	dBm	-18/-14	-18/-14	-18/-14
Satellite transponders 120 120 120 120 Input connector FC/PC FC/PC FC/PC FC/PC RF Frequency Range (Output Parameters) Horisontal high band (converted from 1.45 to 54.5 GHz) MHz 1100-2150 1100-2150 1100-2150 1100-2150 Horisontal high band (converted from 1.95 to 3.0 GHz) MHz 1100-2150 1100-2150 1100-2150 Horisontal low band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 1 1 1 1 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dBm +10 +10 +10 In band spurious power (min.) dBc -25 -25 -25 Out of band spurious power (max.) dBm -60 -60 -60 Lo power (max.) dBm -60 -60 -60 -60 <	Aggregate equivalent RF power (min.)/(max.)	dBm	-60/-20	-60/-20	-60/-20
Input connector FC/PC FC/PC FC/PC RF Frequency Range (Output Parameters) Horisontal high band (converted from 4.4 to 5.45 GHz) MHz 1100-2150 1100-2150 1100-2150 Vertical high band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 Gain ripple across band (max.) dB 1 1 1 Nominal output level (per. transponder) dBm +10 +10 +10 Isolation (unwanted path to selected path) dB 30 30 30 In band spurious power (min.) dBm -660 -60 -60 LO power (max.) dBm -60 -60 -60 Lo power (max.) dBm -60 -60 -60 LO power (max.) dBm -60	Nominal satellite transponder levels (min.)/(max.)	dBm	-80/-40	-80/-40	-80/-40
RF Frequency Range (Output Parameters) Horisontal high band (converted from 4.4 to 5.45 GHz) MHz 1100-2150 1100-2150 1100-2150 Vertical high band (converted from 1.95 to 3.0 GHz) MHz 1100-2150 1100-2150 1100-2150 Horisontal low band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 Gain ripple across band (max.) dB 4 4 4 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dBm -65 (min.), -25 (max.) 0IP3 (min.) Isolation (unwanted path to selected path) dB 30 30 30 In band spurious power (max.) dBm -60 -60 -60 LO power (max.) dBm -60 -60 -60 Lo power (max.) dBm -60 -60 -60 Lop	Satellite transponders		120	120	120
Horisontal high band (converted from 4.4 to 5.45 GHz) MHz 1100-2150 1100-2150 1100-2150 Vertical high band (converted from 1.95 to 3.0 GHz) MHz 1100-2150 1100-2150 1100-2150 Horisontal low band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 Gain ripple across 30MHz (max.) dB 4 4 4 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dBm +10 +10 +10 Isolation (unwanted path to selected path) dB 30 30 30 In bard spurious power (min.) dBm -60 -60 -60 LO power (max.) dBm -60 -60 -60 Integrated phase noise (integrated from 1kHz to 13MHz) °RMS 4 4 4 Output frequency stability/accuracy (max.) kHz <td>Input connector</td> <td></td> <td>FC/PC</td> <td>FC/PC</td> <td>FC/PC</td>	Input connector		FC/PC	FC/PC	FC/PC
Vertical high band (converted from 1.95 to 3.0 GHz) MHz 1100-2150 1100-2150 1100-2150 Horisontal low band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 Gain ripple across band (max.) dB 4 4 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dBm -65 (min.), -25 (max.) 0IP3 (min.) Isolation (unwanted path to selected path) dB 30 30 30 In band spurious power (max.) dBm -60 -60 -60 LO power (max.) k	RF Frequency Range (Output Parameters)				
Horisontal low band (converted from 3.4 to 4.4 GHz) MHz 950-1950 950-1950 950-1950 Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 Gain ripple across band (max.) dB 4 4 4 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dB -65 (min.), -25 (max.) 0IP3 (min.) Isolation (unwanted path to selected path) dB 30 30 30 In band spurious power (min.) dBc -25 -25 -25 Out of band spurious power (max.) dBm -60 -60 -60 LO power (max.) RHZ <t< td=""><td>Horisontal high band (converted from 4.4 to 5.45 GHz)</td><td>MHz</td><td>1100-2150</td><td>1100-2150</td><td>1100-2150</td></t<>	Horisontal high band (converted from 4.4 to 5.45 GHz)	MHz	1100-2150	1100-2150	1100-2150
Vertical high band (converted from 0.95 to 1.95 GHz) MHz 950-1950 950-1950 950-1950 Return loss (min.) dB 10 10 10 Gain ripple across band (max.) dB 4 4 4 Gain ripple across 30MHz (max.) dB 1 1 1 Nominal output level (per. transponder) dBm -65 (min.), -25 (max.) 0 OIP3 (min.) dBm +10 +10 +10 Isolation (unwanted path to selected path) dB 30 30 30 In band spurious power (min.) dBm -60 -60 -60 LO power (max.) dBm -60 -60 -60 LO power (max.) dBm -60 -60 -60 LO power (max.) dBm -60 -60 -60 Integrated phase noise (integrated from 1kHz to 13MHz) *RMS 4 4 4 Output connectors zx and 4 x F-female - 0 - - Others From STB F	Vertical high band (converted from 1.95 to 3.0 GHz)	MHz	1100-2150	1100-2150	1100-2150
Return loss (min.)dB1010Gain ripple across band (max.)dB44Gain ripple across 30MHz (max.)dB11Nominal output level (per. transponder)dB11Nominal output level (per. transponder)dBm+10+10OIP3 (min.)dBm+10+10+10Isolation (unwanted path to selected path)dB3030In band spurious power (min.)dBc-25-25Out of band spurious power (max.)dBm-60-60LO power (max.)dBm-60-60Lo power (max.)dBm-60-60Lo power (max.)dBm-60320Output frequency stability/accuracy (max.)kHz320320Output frequency stability/accuracy (max.)kHz320320Output connectors2x and 4 x F-female-OthersPower consumption (at 12 VDC)mA<300	Horisontal low band (converted from 3.4 to 4.4 GHz)	MHz	950-1950	950-1950	950-1950
Gain ripple across band (max.)dB44Gain ripple across 30MHz (max.)dB11Nominal output level (per. transponder)dBm-65 (min.), -25 (max.)OIP3 (min.)dBm+10+10Isolation (unwanted path to selected path)dB3030In band spurious power (min.)dBc-25-25Out of band spurious power (max.)dBm-60-60LO power (max.)dBm-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS44Output frequency stability/accuracy (max.)kHz320320Output frequency stability/accuracy (max.)kHz320320Output connectors2x and 4 x F-female-OthersFrom STBFrom STBFrom STBPower consumption (at 12 VDC)mA<300	Vertical high band (converted from 0.95 to 1.95 GHz)	MHz	950-1950	950-1950	950-1950
Gain ripple across 30MHz (max.)dB111Nominal output level (per. transponder)dBm-65 (min.), -25 (max.)OIP3 (min.)dBm+10+10+10Isolation (unwanted path to selected path)dB3030In band spurious power (min.)dBc-25-25Out of band spurious power (max.)dBm-60-60LO power (max.)dBm-60-60LO power (max.)dBm-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS44Output frequency stability/accuracy (max.)kHz320320Output connectors2x and 4 x F-female-OthersPower consumption (at 12 VDC)mA<300	Return loss (min.)	dB	10	10	10
Nominal output level (per. transponder)dBm-65 (min.), -25 (max.)OIP3 (min.)dBm+10+10+10Isolation (unwanted path to selected path)dB3030In band spurious power (min.)dBc-25-25Out of band spurious power (max.)dBm-60-60LO power (max.)dBm-60-60Integrated phase noise (integrated from 1kHz to 13MHz)PRMS44Output frequency stability/accuracy (max.)kHz320320Output connectors2x and 4 x F-femaleOthers-2300<300	Gain ripple across band (max.)	dB	4	4	4
OIP3 (min.)dBm+10+10+10Isolation (unwanted path to selected path)dB303030In band spurious power (min.)dBc-25-25-25Out of band spurious power (max.)dBm-60-60-60LO power (max.)dBm-60-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS444Output frequency stability/accuracy (max.)kHz320320320Output frequency stability/accuracy (max.)kHz320320320Output connectors2x and 4 x F-female-OthersPower consumption (at 12 VDC)mA<300	Gain ripple across 30MHz (max.)	dB	1	1	1
Isolation (unwanted path to selected path)dB303030In band spurious power (min.)dBc-25-25-25Out of band spurious power (max.)dBm-60-60-60LO power (max.)dBm-60-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS444Output frequency stability/accuracy (max.)kHz320320320Output connectors2x and 4 x F-femaleOthersPower consumption (at 12 VDC)mA<300	Nominal output level (per. transponder)	dBm	-	65 (min.), -25 (max.)	
In band spurious power (min.)dBc-25-25-25Out of band spurious power (max.)dBm-60-60-60LO power (max.)dBm-60-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS444Output frequency stability/accuracy (max.)kHz320320320Output connectors2x and 4 x F-femaleOthersPower consumption (at 12 VDC)mA<300	OIP3 (min.)	dBm	+10	+10	+10
Out of band spurious power (max.)dBm-60-60-60LO power (max.)dBm-60-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS444Output frequency stability/accuracy (max.)kHz320320320Output connectors2x and 4 x F-female-60-60-60OthersPower consumption (at 12 VDC)mA<300	Isolation (unwanted path to selected path)	dB	30	30	30
LO power (max.)dBm-60-60-60Integrated phase noise (integrated from 1kHz to 13MHz)°RMS444Output frequency stability/accuracy (max.)kHz320320320Output connectors2x and 4 x F-female2x and 4 x F-femaleOthers	In band spurious power (min.)	dBc	-25	-25	-25
Integrated phase noise (integrated from 1kHz to 13MHz)°RMS44Output frequency stability/accuracy (max.)kHz320320320Output connectors $2x$ and 4 x F-femaleOthers $2x$ and 4 x F-femalePower consumption (at 12 VDC)mA<300	Out of band spurious power (max.)	dBm	-60	-60	-60
Output frequency stability/accuracy (max.)kHz320320320Output connectors $2x$ and 4 x F-femaleOthers $2x$ and 4 x F-femalePower consumption (at 12 VDC)mA<300	LO power (max.)	dBm	-60	-60	-60
Output connectors $2x ext{ and } 4x ext{ F-female}$ OthersmA <300 <300 <300 Power consumption (at 12 VDC)mA <300 <300 <300 Power supply (QUAD and TWIN versions)From STBFrom STBFrom STBPower supply (QUATTRO versions)External PSUExternal PSUExternal PSUPower input (plug to optionally supply converter externally)VDC $+20$ $+20$ Level switchExternal PSUExternal PSUExternal PSU	Integrated phase noise (integrated from 1kHz to 13MHz)	°RMS	4	4	4
OthersPower consumption (at 12 VDC)mA<300	Output frequency stability/accuracy (max.)	kHz	320	320	320
Power consumption (at 12 VDC)mA<300<300<300Power supply (QUAD and TWIN versions)From STBFrom STBFrom STBPower supply (QUATTRO versions)External PSUExternal PSUExternal PSUPower input (plug to optionally supply converter externally)VDC+20+20Level switchFrom STBFrom STBFrom STB	Output connectors			2x and 4 x F-female	
Power supply (QUAD and TWIN versions)From STBFrom STBFrom STBPower supply (QUATTRO versions)External PSUExternal PSUExternal PSUPower input (plug to optionally supply converter externally)VDC+20+20Level switch+20+20+20	Others				
Power supply (QUATTRO versions)External PSUExternal PSUExternal PSUPower input (plug to optionally supply converter externally)VDC+20+20+20Level switch+20+20+20+20+20	Power consumption (at 12 VDC)	mA	<300	<300	<300
Power input (plug to optionally supply converter externally)VDC+20+20+20Level switch	Power supply (QUAD and TWIN versions)		From STB	From STB	From STB
Level switch	Power supply (QUATTRO versions)		External PSU	External PSU	External PSU
	Power input (plug to optionally supply converter externally)	VDC	+20	+20	+20
Passive optic network size switch (levels of splitting) STD / SML STD / SML STD / SML	Level switch				
	Passive optic network size switch (levels of splitting)		STD / SML	STD / SML	STD / SML

Triax fibre optical accessories

- for building optical networks

The Triax fibre optical TOS passive splitter/coupler units let you build passive optical networks (PON) in virtually any size and split ratio.

Using any combination of the 2, 4 and 8-way optical splitters, passive optical networks can be realized that satisfy almost any requirement for network coverage. Using the TOS splitters in tandem with the optical LNB products the link budget allows splitting into 32 ways.

- ✓ Pre-connected cables for easy installation
- ✓ On-site-connectors for use with unterminated cables (No need for fusion-splicing)
- Barrel connectors allow components to be used with all products
- ✓ For singlemode use



Steel armored 3.0 fibre optic cable



Fit on site connector



Steel armored 3.0 fibre optic cable

Technical data

Туре	TFF 01 Fit-on-site connector	TFF 001 Optical test tool	TFB 001 FC/PC-FC/PC	TFB 002 FC/PC-SC/PC
Art. No.	307680	307682	307684	307686
Remarks			Barrel connector (Optical LNB use)	Barrel connector (HFC system use)

Steel armored 3.0 fibre optic cable - G657A, LSZH

Туре		TFC 01	TFC 03	TFC 05	TFC 10	TFC 15
Art. No.		307661	307662	307663	307664	307665
Pre-connected with (in and out)		FC/PC	FC/PC	FC/PC	FC/PC	FC/PC
Cable length	m	1	3	5	10	15



Туре		TFC 20	TFC 30	TFC 40	TFC 50	TFC 75
Art. No.		307666	307667	307668	307669	307670
Pre-connected with (in and out)		FC/PC	FC/PC	FC/PC	FC/PC	FC/PC
Cable length	m	20	30	40	50	75



Туре		TFC 100	TFC 200	TFC 500
Art. No.		307671	307672	307675
Pre-connected with (in and out)		FC/PC	FC/PC	none
Cable length	m	100	200	500

- a high quality, high performance universal LNB

The Triax TOL32 optical LNB provides a 1310 nm wideband optical output where all four satellite polarities are stacked into one frequency range (950-5450 MHz). Using modern laser technology this frequency range can be transmitted via a single laser over a very large distance, and can sustain splitting into 32 ways. This allows a system setup that can drive a fairly large passive optical network (PON) before the signal is finally fed into a number of virtual converters for traditional coax distribution.

- ✓ Universal LNB with fibre optic output for long range coverage
- Minimizes losses on long distances (max. 0.3dB/km versus 32dB/100m on coax)
- 7dBm optical link output supports up to 32 way splitting (32 converters)
- ✓ Uses 1310 nm technology







TOL 32 optical LNB

TOL 32 optical LNB

Technical data

Туре		TOL 32
Art. No.		307610
Frequencies		
Input frequency range	GHz	10,7 – 12.75
Band stacking, vertical	GHz	0.950 – 3.0
Band stacking, horisontal	GHz	3.4 – 5.45
Polarization	linear	Horizontal and vertical
Optical		
Wavelength	nm	1310
Optical output power, (nominal@25 °C)	dBm	7.0
Variation, output power, (over full temperature range)	dBm	± 0.2
Equivalent split levels possible (max.)	ways	32
Total loss (nominal)	dB	18.3
Noise		
Noise figure (typical@25°C/ max. @25°C)	dB	0.5/1.1
Noise figure (typ. over temperature/ max. over temperature)	dB	0.7/1.3
Gain		
Conversion gain (min. at room temperature/ max.at room temperature)	dB	72/62
Gain variation (-30 to +60 °C)	dB	± 2
Gain flatness (0.95 to 5.45 GHz)	dB	5
Gain ripple (per 26MHz bandwidth segment)	dB	≤0.5
Local Oscillator (L.O.)		
L.O. frequency, vertical/ horisontal	GHz	9.75/ 7.3
L.O. phase noise (offset frequency 1 kHz/ 10 kHz/ 100 kHz/ 1 MHz)	dBc/Hz	-55/ -80/ -100/ -110
L.O. stability, initial setting	MHz	± 1
L.O. temperature drift (-40 °C to +60 °C)	MHz	± 2
L.O. aging and total drift (10 years)	MHz	± 4
Additional		
Image rejection (min.)	dB	40
Cross polar isolation (typ./ min.)	dB	30/25
Spurious output - in band (950MHz-3GHz, 3.4GHz-5.45GHz)	dBc	-25
LNB type		Universal Wholeband
Supply voltage, nominal/ maximum survival voltage	VDC	12/ 25
Current consumption	mA	< 450
DC-input		F-type, female
Optical output		FC/PC
Dimensions / temperature		
Mounting dimensions / neck diameter	mm	40
Ambient operating temperature range	°C	-30 - +60

Example

