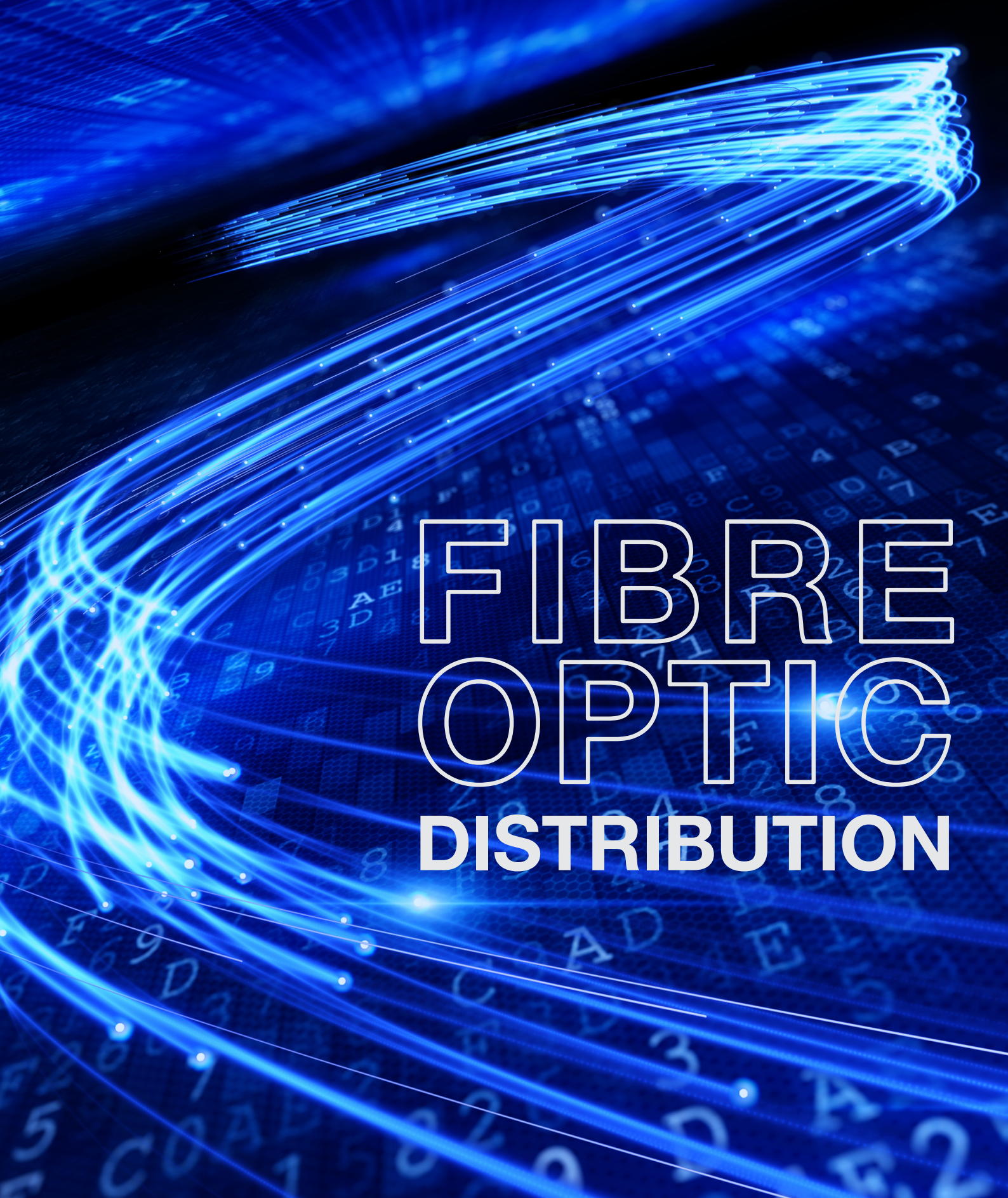




FIBRE OPTIC DISTRIBUTION

LEM ELETTRONICA®

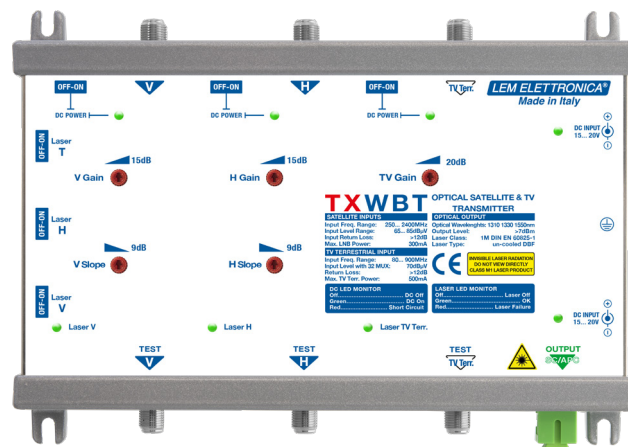
Satellite and TV reception equipment

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TXWBT - TXWB

- V & H inputs for wide band LNB
- LNB and TV Terr. power feeding
- On/Off switch for each Laser
- Test point for each input
- Adjustable gain and slope for Satellite inputs
- Optical monitor Led for each Laser
- Double DC input for redundant power supply



Multiple DFB low distortion laser optical transmitters based on WDM technology for MATV and Satellite signals distribution over a sole single-mode fibre optic cable.

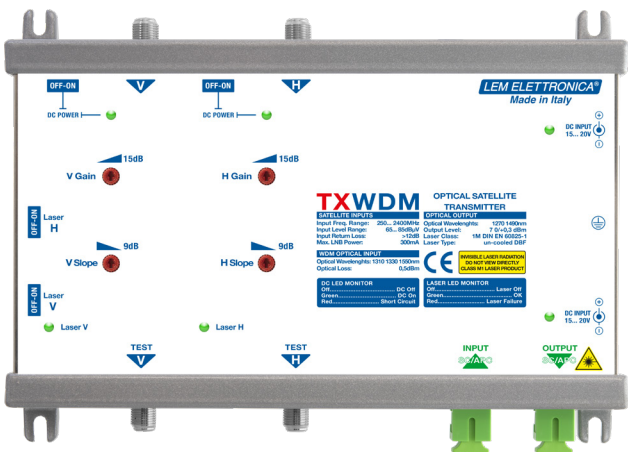
Ready for
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WARRANTY **5** YEARS

MODEL		TXWBT-9	TXWBT	TXWB
RF INPUTS	n°	3		2
RF TEST OUTPUTS	n°	3		2
OPTICAL OUTPUT	n°	1		
OPTICAL				
OUTPUT WAVELENGTH	nm	1310 - 1330 - 1550		1310 - 1330
LASER TYPE		UN-COOLED MULTI QUANTUM DFB		
LASER CLASS		1M, EN 60825-1		
OUTPUT POWER	dBm	9 +/-0,5	7	
OUTPUT CONNECTOR		SC/APC		
SATELLITE				
INPUTS BANDWIDTH (for Wide Band LNB)	MHz	250... 2.400		
INPUT RANGE LEVEL (ADJUSTABLE)	dBµV	70... 90		
A.C.G. RANGE	dB	20		
SLOPE ADJUSTER RANGE	dB	0... 9		
RETURN LOSS	dB	>12		
LNB REMOTE FEEDING		5,25W (15VDC/350mA)		
TV TERRESTRIAL				
INPUT BANDWIDTH	MHz	80... 900		-
INPUT LEVEL FOR 32 MUX	dBµV	70		-
INPUT LEVEL ADJUSTER RANGE	dB	0... -15		-
TERRESTRIAL REMOTE POWER FEEDING		8W (14VDC/570mA)		-
OTHERS				
DC INPUT VOLTAGE	V	12... 20		
MAX. POWER CONS. WITHOUT EXTERNAL LOAD	W	3,5		3
MAX. POWER CONS. WITH EXTERNAL LOAD	W	17		9
SHORT-CIRCUIT PROTECTION		ALL INPUTS		
DIMENSIONS	mm	146x200x38		
OPERATING TEMPERATURE	°C	0... +50		

TXWDM

- V & H inputs for wide band LNB
- Built-in low loss CWDM
- LNB power feeding
- On/Off switch and monitor LED for each Laser
- Test point for each input
- Adjustable gain and slope for Satellite inputs
- Double DC input for redundant power supply



Two wavelength optical transmitter suitable to multiplex the wavelengths of the **TXWBT** or **TXWB** transmitter. To achieve distributions of two satellite orbital positions over a sole single-mode optical Fibre.

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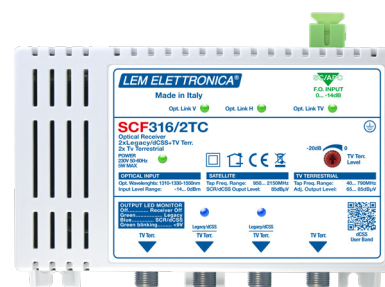
WARRANTY
5 YEARS

MODEL		TXWDM
RF INPUTS	n°	2
RF TEST OUTPUTS	n°	2
OPTICAL OUTPUT	n°	1
OPTICAL LOOP THROUGH (for TXWBT or TXWB)	n°	1
OPTICAL		
OUTPUT WAVELENGTH	nm	1.270 - 1.490
LASER TYPE		UN-COOLED MULTI QUANTUM DFB
LASER CLASS		1M, EN 60825-1
OUTPUT POWER	dBm	7
INPUT WAVELENGTHS LOOP THROUGH	nm	1310 - 1330 - 1550
INPUT CONNECTOR		SC/APC
OUTPUT CONNECTOR		SC/APC
SATELLITE		
INPUTS BANDWIDTH (for Wide Band LNB)	MHz	250... 2.400
INPUT RANGE LEVEL (ADJUSTABLE)	dBµV	70... 90
A.C.G. RANGE	dB	20
SLOPE ADJUSTER RANGE	dB	0... 9
RETURN LOSS	dB	>12
LNB REMOTE FEEDING		5,25W (15VDC/350mA)
OTHERS		
DC INPUT VOLTAGE	V	12... 20
MAX. POWER CONSUMPTION WITHOUT EXTERNAL LOAD	W	3
MAX. POWER CONSUMPTION WITH EXTERNAL LOAD	W	9
SHORT-CIRCUIT PROTECTION		ALL INPUTS
DIMENSIONS	mm	146x200x38
OPERATING TEMPERATURE	°C	0... +50

SCF316/2 SCF316/2TC

- Legacy/dSCR-DTT/DAB/FM outputs
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal

Multioption dSCR optical converters for distribution over a sole single-mode optical fibre of the signals of one satellite and terrestrial feed (TV/FM/DAB).



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WARRANTY 5 YEARS

MODEL		SCF316/2		SCF316/2TC	
OPTICAL INPUT			1		
OUTPUTS (TERRESTRIAL+SATELLITE)			2		
TERRESTRIAL ONLY OUTPUTS			-	2	
OPTICAL					
OPERATION WAVELENGTH		nm	1310 - 1330 - 1550		
INPUT POWER RANGE		dBm	-14... 0		
INPUT CONNECTOR TYPE			SC/APC		
RETURN LOSS		dB	≥40		
SATELLITE					
OUTPUT BANDWIDTH		MHz	950... 2150		
SCR/dCSS OUTPUT LEVEL		dBμV	85		
LEGACY OUTPUT LEVEL		dBμV	75		
SATELLITE CONTROL STANDARDS			Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0		
SSCR/dCSS/dSCR PROTOCOLS			EN50494 / EN50607 / SKY UK		
AVAILABLE USER BAND FREQUENCY PLANS			SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT		
TV TERRESTRIAL / FM / DAB					
OUTPUT BANDWIDTH		MHz	40... 790		
SEPARATE OUTPUTS MAXIMUM LEVEL		dBμV	-	95	
DIPLEXED OUTPUT MAXIMUM LEVEL		dBμV	85		
OUTPUT LEVEL ADJUSTABLE RANGE		dB	0... -20		
OTHERS					
ISOLATION BETWEEN SATELLITE/TERRESTRIAL		dB	≥ 40		
ISOLATION V / H		dB	> 30		
OUTPUT RETURN LOSS		dB	> 12		
DC INPUT VOLTAGE RANGE		V	12... 20		
MAXIMUM CONSUMPTION		W	4,5	5	
AC INPUT POWER			-	100... 240V 50/60Hz	
OPERATING TEMPERATURE		°C	0... 50		
DIMENSIONS		mm	127x90x38		127x106x35

SCF316/4

- Legacy/dSCR-DTT/DAB/FM outputs
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal



Multioutput dSCR optical converters for distribution over a sole single-mode optical fibre of the signals of one satellite and terrestrial feed (TV/FM/DAB).

Ready for
UHD TV

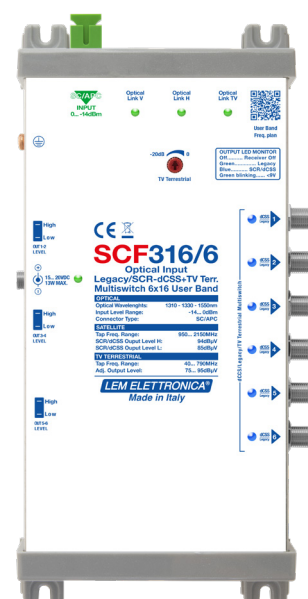
WARRANTY **5** YEARS

MODEL		SCF316/4
OPTICAL INPUT		1
OUTPUTS (TERRESTRIAL+SATELLITE)		4
TERRESTRIAL ONLY OUTPUTS		1
OPTICAL		
OPERATION WAVELENGTH	nm	1310 - 1330 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Low / 94 High
LEGACY OUTPUT LEVEL	dBμV	75 Low / 80 High
SATELLITE CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SSCR/dCSS/dSCR PROTOCOLS		EN50494 / EN50607 / SKY UK
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
SEPARATE OUTPUTS MAXIMUM LEVEL	dBμV	90
DIPLEXED OUTPUT MAXIMUM LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 12
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	11
AC INPUT POWER		100... 240V 50/60Hz
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	172x118x38

SCF316/6

- Legacy/dSCR-DTT/DAB/FM outputs
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal

Multioutput dSCR optical converters for distribution over a sole single-mode optical fibre of the signals of one satellite and terrestrial feed (TV/FM/DAB).



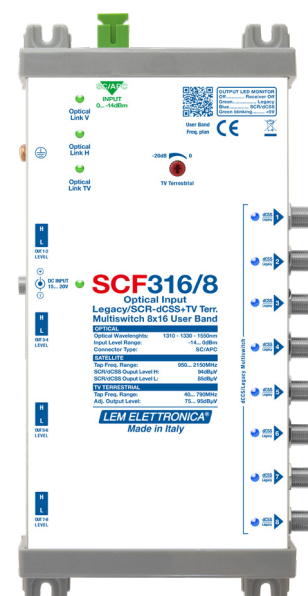
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UHD TV

5
WARRANTY YEARS

MODEL		SCF316/6
OPTICAL INPUT		1
OUTPUTS (TERRESTRIAL+SATELLITE)		6
OPTICAL		
OPERATION WAVELENGTH	nm	1310 - 1330 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Low / 94 High
LEGACY OUTPUT LEVEL	dBμV	75 Low / 80 High
SATELLITE CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SCR/dCSS/dSCR PROTOCOLS		EN50494 / EN50607 / SKY UK (AUTO-SWITCH)
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
MAXIMUM OUTPUT LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 12
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	13
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	242x118x38

SCF316/8

- Legacy/dSCR-DTT/DAB/FM outputs
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal



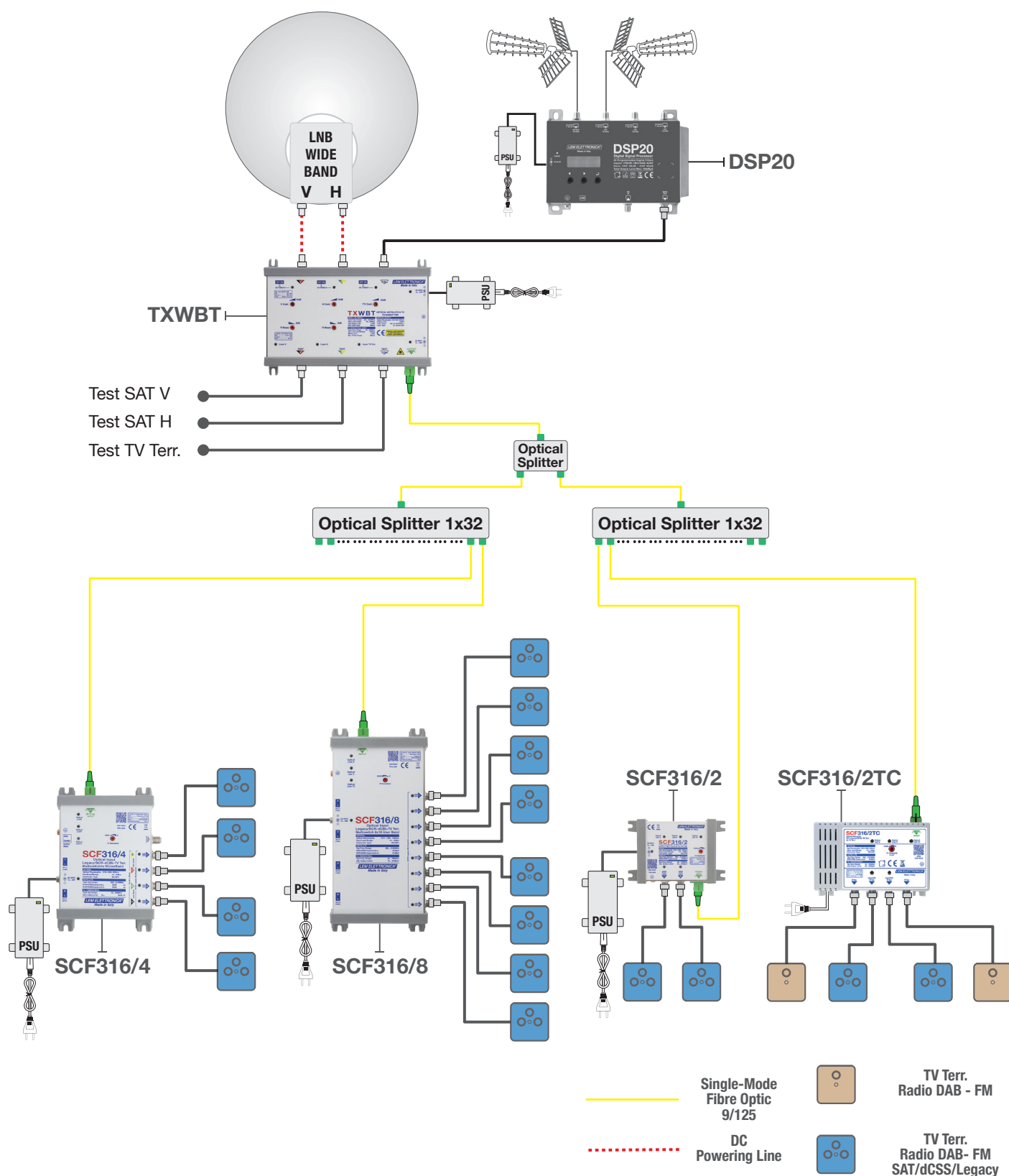
Multioutput dSCR optical converters for distribution over a sole single-mode optical fibre of the signals of one satellite and terrestrial feed (TV/FM/DAB).

Ready for
UHD TV

5
WARRANTY YEARS

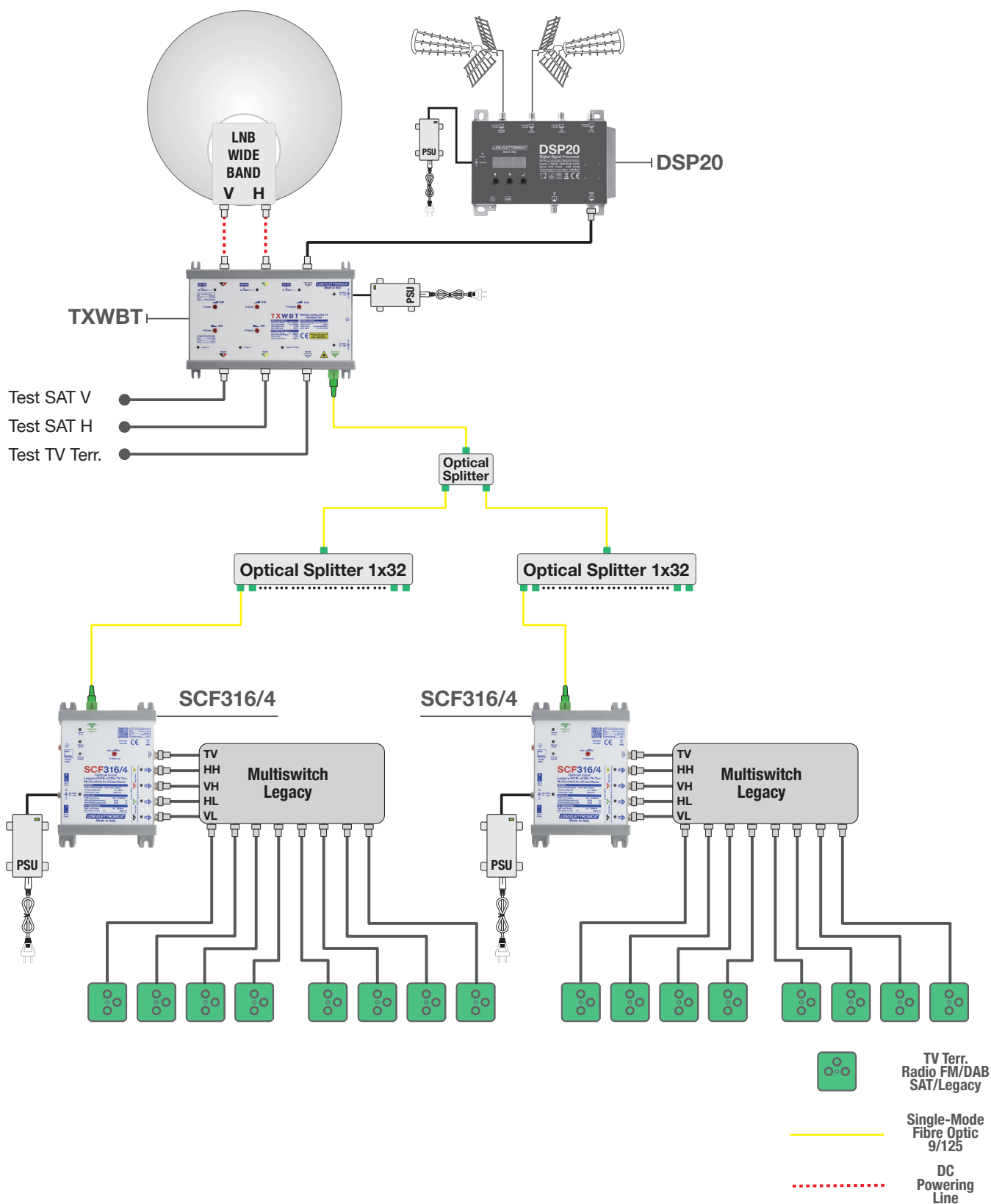
MODEL		SCF316/8
OPTICAL INPUT		1
OUTPUTS (TERRESTRIAL+SATELLITE)		8
OPTICAL		
OPERATION WAVELENGTH	nm	1310 - 1330 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Low / 94 High
LEGACY OUTPUT LEVEL	dBμV	75 Low / 80 High
SATELLITE CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SCR/dCSS/dSCR PROTOCOLS		EN50494 / EN50607 / SKY UK (AUTO-SWITCH)
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
MAXIMUM OUTPUT LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 12
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	16
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	242x118x38

SINGLE SATELLITE FIBRE OPTIC MULTISWITCH



Distribution of one satellite and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre

The headend **TXWBT** converts and transmits over a single-mode fibre optical cable the terrestrial feeds and the transponders of a satellite received from a Wide Band LNB. Each **SCF316** series optical converter output provides terrestrial and satellite signals supporting the legacy or dSCR standards (AUTO-SWITCH).



Distribution of one satellite and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre to standard five wire multiswitch

The headend **TXWBT** converts and transmits over a single-mode fibre optical cable the terrestrial feeds and the transponders of a satellite. The optical signals are received by the optical converter **SCF316/4** set to be a virtual LNB Quattro. The outputs VL-HL/VH-HH and the terrestrial output can feed any five input multiswitch.

FCOWT e FCOW

- A.G.C. for each output
- RF adjuster for each output
- Optical link monitor

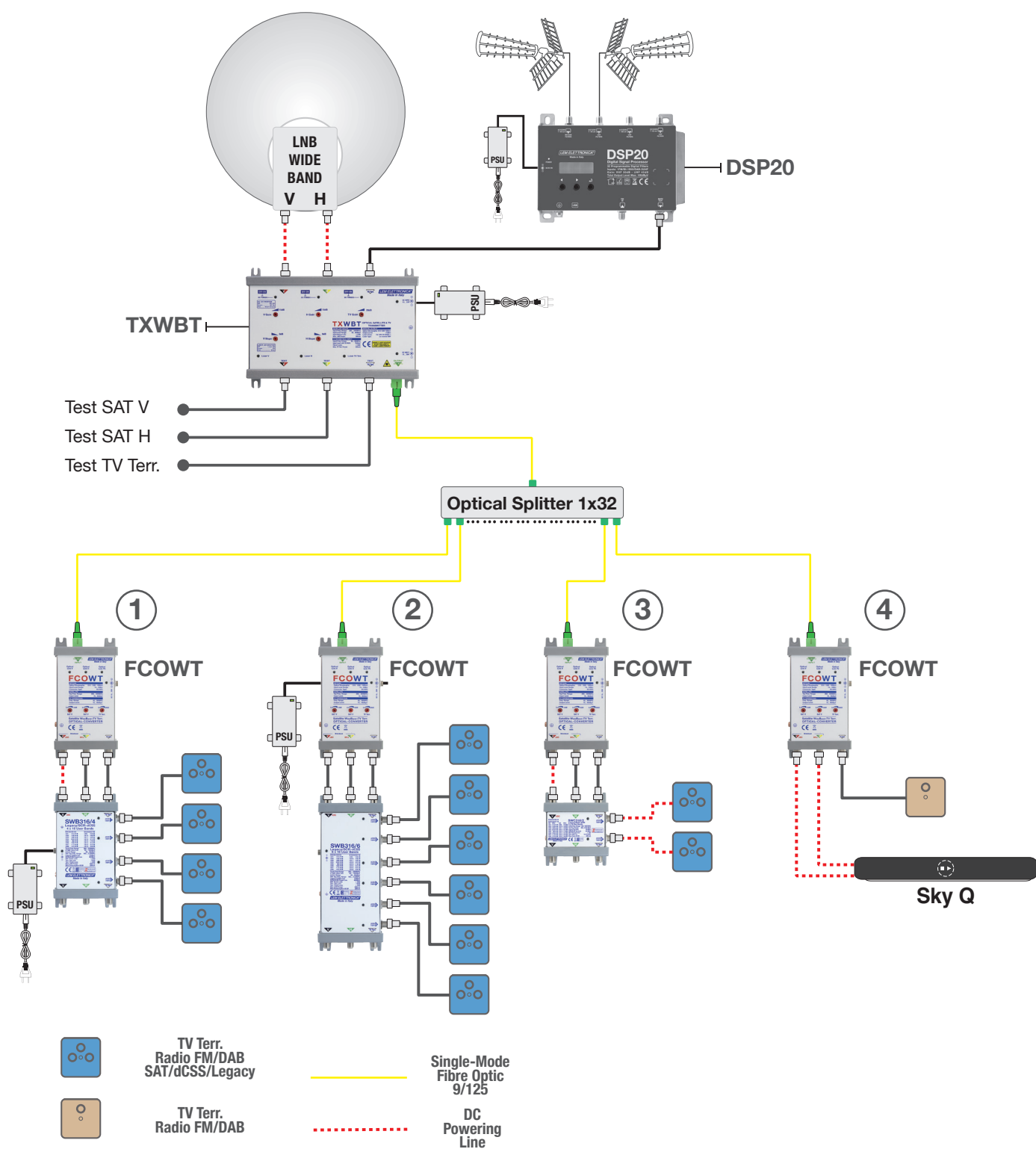


Optical compact converter for terrestrial and vertical and horizontal wide band IF signals over a sole single-mode fibre optic. It can be used combined with Wide Band Multiswitch or directly to Sky Q wide band inputs. Also available the Satellite Wide Band output only.

Ready for
UHD TV

5
WARRANTY YEARS

MODEL		FCOWT		FCOW
OPTICAL INPUT				1
RF OUTPUTS		3		2
OPTICAL				
OPERATION WAVELENGTH	nm	1310 - 1330 - 1550		1310 - 1330
INPUT POWER RANGE	dBm	-14... 0		
INPUT CONNECTOR TYPE		SC/APC		
RETURN LOSS	dB	≥40		
SATELLITE				
OUTPUT BANDWIDTH	MHz	250... 2400		
OUTPUT LEVEL	dBμV	78... 90		
TV TERRESTRIAL / FM / DAB				
OUTPUT BANDWIDTH	MHz	40... 862		-
LEVEL ADJUSTER ATTENUATOR	dB	0... -20		-
OUTPUT LEVEL	dBμV	70... 90		-
OTHERS				
ISOLATION V / H	dB	> 30		
OUTPUT RETURN LOSS	dB	> 12		
DC INPUT VOLTAGE RANGE	V	12... 20		
MAXIMUM CONSUMPTION	W	3,2		3
OPERATING TEMPERATURE		°C 0... 50		
DIMENSIONS	mm	80x159x35		



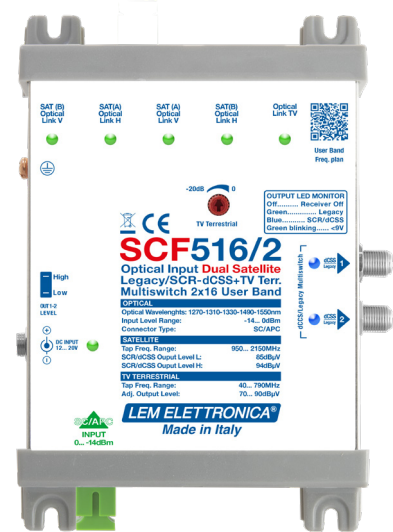
The **TXWBT** headend converts and transmits over a single-mode optical fibre cable the terrestrial signals (DTT, FM, DAB) and all the transponders of a satellite received from an Wide Band LNB. The conversion of the optical signals are performed by **FCOWT**.

In the sample there are four suggested use and powering mode of the **FCOWT**:

- (1) Combined with a **SWB316/4** powered by the PSU connected to the multiswitch.
- (2) Combined with a **SWB316/8**, powering is provided by PSU connected to FCOWT
- (3) Combined with a **SWC316/2**, powering is provided by the Set-Top-Box.
- (4) Directly powered and connected to the Sky Q Wide Band inputs

SCF516/2

- Reception of 2 satellites and terrestrial feed
- Legacy/dSCR - DTT/DAB/FM outputs
- Output booster for satellite signals
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal



Two-output dSCR optical converter for distribution over a sole single-mode optical fibre of the signals of two satellites and terrestrial feed (TV/FM/DAB).

Ready for
UHD TV

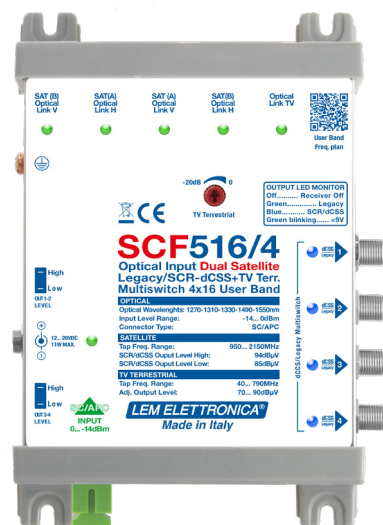
5
WARRANTY YEARS

A B
2 Satellite Positions

MODEL		SCF516/2
OPTICAL INPUT		1
RF OUTPUTS		2
OPTICAL		
OPERATION WAVELENGTHS	nm	1.270 - 1310 - 1330 - 1.490 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Booster OFF / 94 Booster ON
LEGACY OUTPUT LEVEL	dBμV	75 Booster OFF / 80 Booster ON
SATELLITE CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SCR/dCSS/DSCR PROTOCOLS		EN50494 / EN50607 / SKY UK (AUTO-SWITCH)
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
MAXIMUM OUTPUT LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 12
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	7
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	172x118x38

SCF516/4

- Reception of 2 satellites and terrestrial feed
- Legacy/dSCR - DTT/DAB/FM outputs
- Output booster for satellite signals
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal



Two-output dSCR optical converter for distribution over a sole single-mode optical fibre of the signals of two satellites and terrestrial feed (TV/FM/DAB).

Ready for
UHD TV

5
WARRANTY YEARS

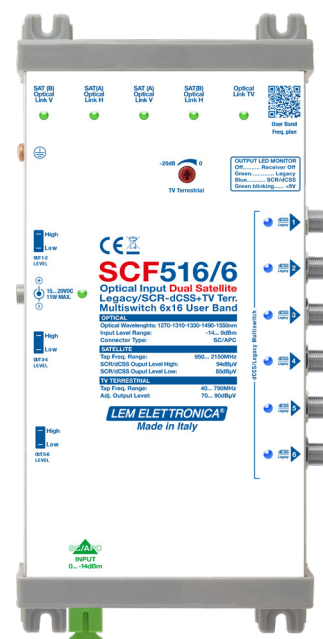
A B
2 Satellite Positions

MODEL		SCF516/4
OPTICAL INPUT		1
RF OUTPUTS		4
OPTICAL		
OPERATION WAVELENGTHS	nm	1.270 - 1310 - 1330 - 1.490 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Booster OFF / 94 Booster ON
LEGACY OUTPUT LEVEL	dBμV	75 Booster OFF / 80 Booster ON
SATELLITE CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SCR/dCSS/DSCR PROTOCOLS		EN50494 / EN50607 / SKY UK (AUTO-SWITCH)
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
MAXIMUM OUTPUT LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 12
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	11
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	172x118x38

SCF516/6

- Reception of 2 satellites and terrestrial feed
- Legacy/dSCR - DTT/DAB/FM outputs
- Output booster for satellite signals
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal

Two-output dSCR optical converter for distribution over a sole single-mode optical fibre of the signals of two satellites and terrestrial feed (TV/FM/DAB).



Ready for
UHD TV

5
WARRANTY YEARS

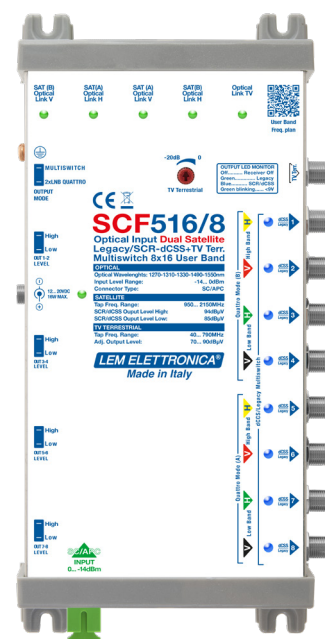
A B
2 Satellite Positions

MODEL		SCF516/6
OPTICAL INPUT		1
RF OUTPUTS		6
OPTICAL		
OPERATION WAVELENGTHS	nm	1.270 - 1310 - 1330 - 1.490 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Booster OFF / 94 Booster ON
LEGACY OUTPUT LEVEL	dBμV	75 Booster OFF / 80 Booster ON
SATELLITE OUTPUTS CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SCR/dCSS/DSCR PROTOCOLS		EN50494 / EN50607 / SKY UK (AUTO-SWITCH)
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
SEPARATE OUTPUT MAXIMUM LEVEL	MHz	90
MAXIMUM OUTPUT LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 10
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	15
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	237x118x38

SCF516/8

- Reception of 2 satellites and terrestrial feed
- Legacy/dSCR - DTT/DAB/FM outputs
- Output booster for satellite signals
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal

Two-output dSCR optical converter for distribution over a sole single-mode optical fibre of the signals of two satellites and terrestrial feed (TV/FM/DAB).



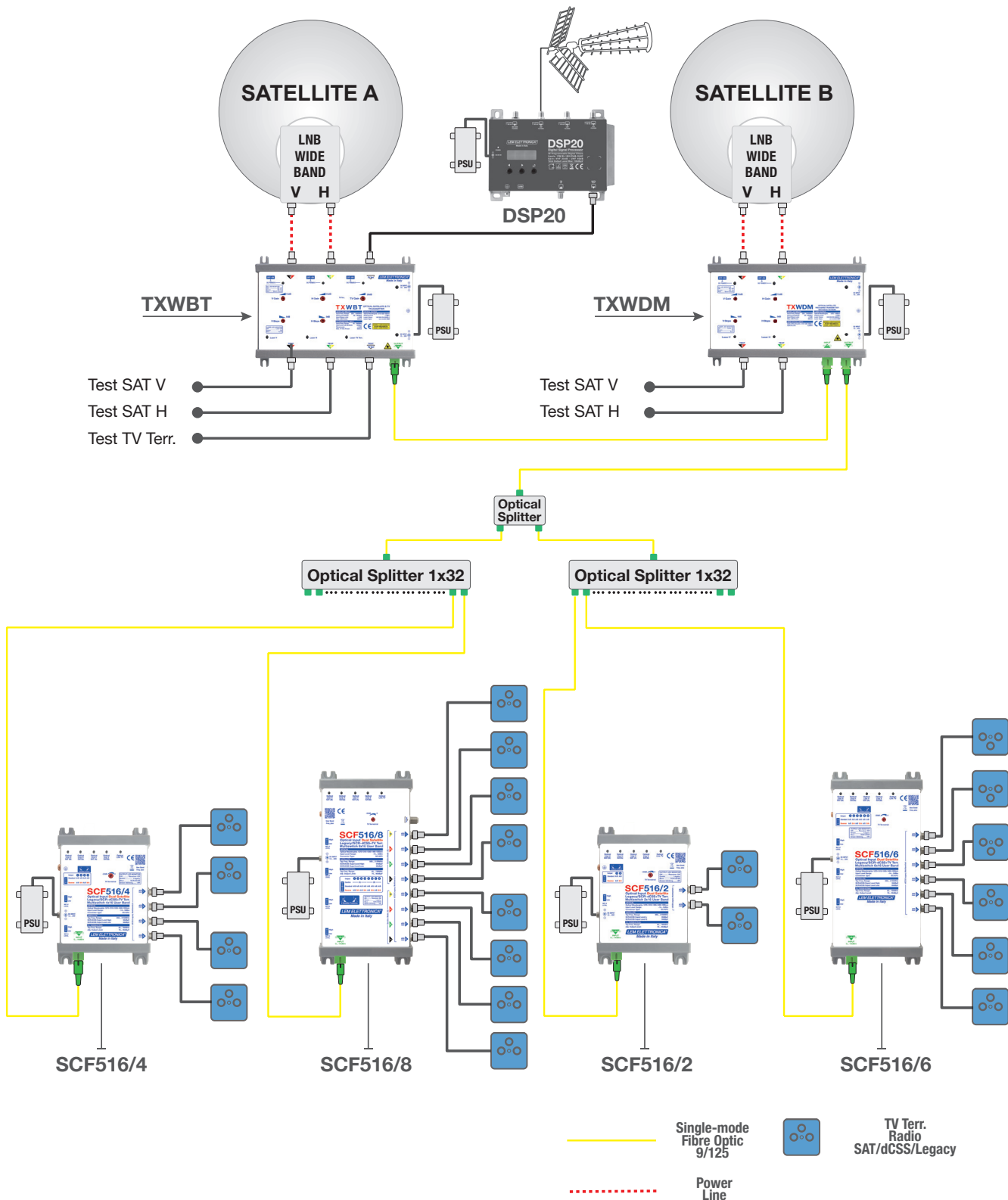
Ready for
UHD TV

5
WARRANTY YEARS

A B
2 Satellite Positions

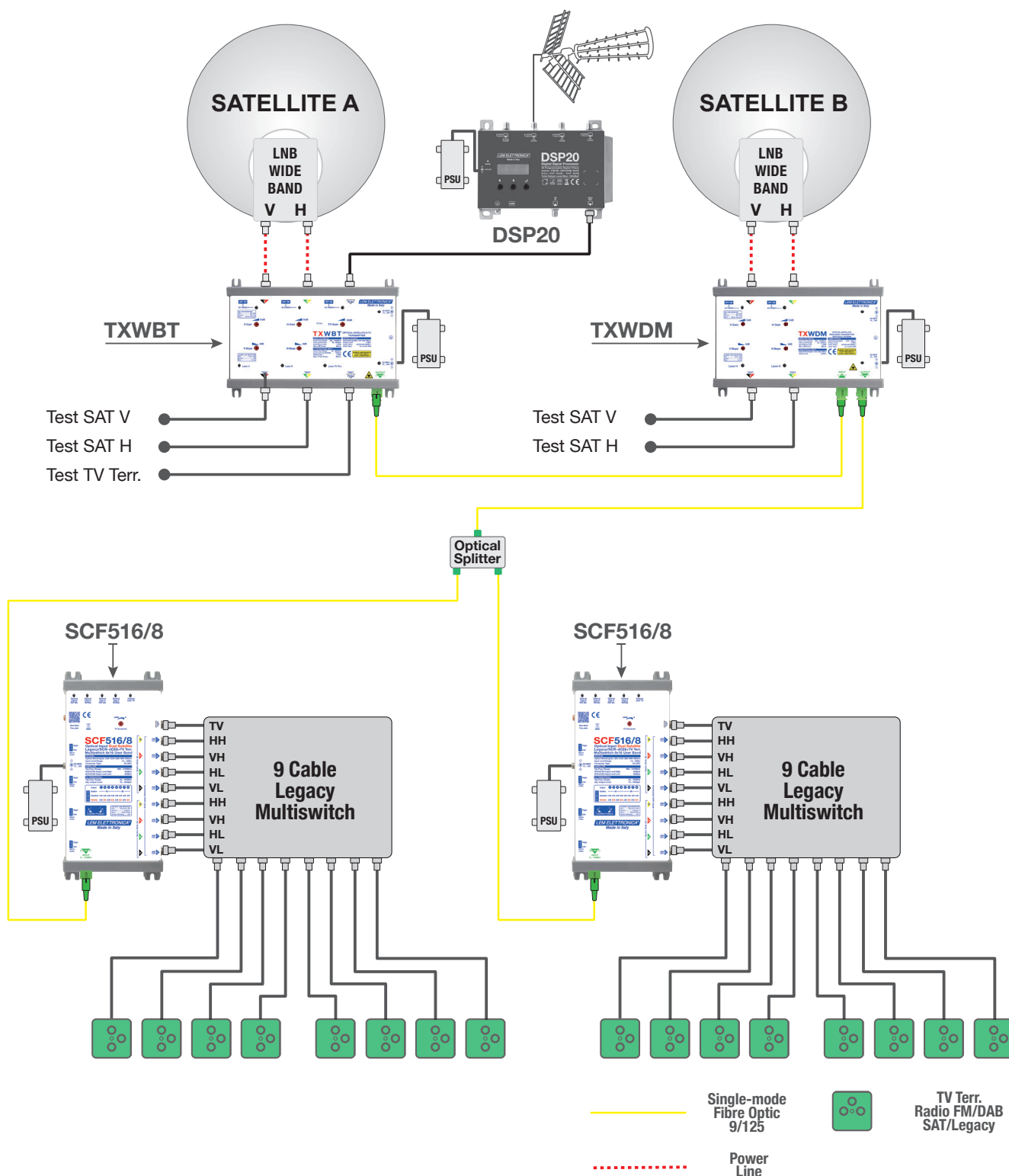
MODEL		SCF516/8
OPTICAL INPUT		1
RF OUTPUTS		9
OPTICAL		
OPERATION WAVELENGTHS	nm	1.270 - 1310 - 1330 - 1.490 - 1550
INPUT POWER RANGE	dBm	-14... 0
INPUT CONNECTOR TYPE		SC/APC
RETURN LOSS	dB	≥40
SATELLITE		
OUTPUT BANDWIDTH	MHz	950... 2150
SCR/dCSS OUTPUT LEVEL	dBμV	85 Booster OFF / 94 Booster ON
LEGACY OUTPUT LEVEL	dBμV	75 Booster OFF / 80 Booster ON
SATELLITE OUTPUTS CONTROL STANDARDS		Universal LNB Voltage & Tone / DiSEqC 1.0 / DiSEqC 2.0
SCR/dCSS/DSCR PROTOCOLS		EN50494 / EN50607 / SKY UK (AUTO-SWITCH)
AVAILABLE USER BAND FREQUENCY PLANS		SKY ITALIA - SKY UK / DSTV SOUTH AFRICA / POLSAT
TV TERRESTRIAL / FM / DAB		
OUTPUT BANDWIDTH	MHz	40... 790
SEPARATE OUTPUT MAXIMUM LEVEL	MHz	90
MAXIMUM OUTPUT LEVEL	dBμV	85
OUTPUT LEVEL ADJUSTABLE RANGE	dB	0... -20
OTHERS		
ISOLATION BETWEEN SATELLITE/TERRESTRIAL	dB	≥ 40
ISOLATION V / H	dB	> 30
OUTPUT RETURN LOSS	dB	> 10
DC INPUT VOLTAGE RANGE	V	12... 20
MAXIMUM CONSUMPTION	W	19
OPERATING TEMPERATURE	°C	0... 50
DIMENSIONS	mm	237x118x38

TWO SATELLITES FIBRE OPTIC MULTISWITCH



Distribution of two satellite and terrestrial feed (DTT, FM, DAB) over a single-mode optical fibre

The headends **TXWBT** and **TXWDM** convert and transmit over a single-mode fibre optical cable the terrestrial feeds and all the transponders of two satellite received from two Wide Band LNB. The optical multiswitches of the SCF516 series receive and converted into RF to be ready for a single or multi-dwelling coaxial distribution. Each SCF516 series multiswitch output provides terrestrial and satellite signals and fully supports Diseqc controls in legacy and SCR/dCSS standards.



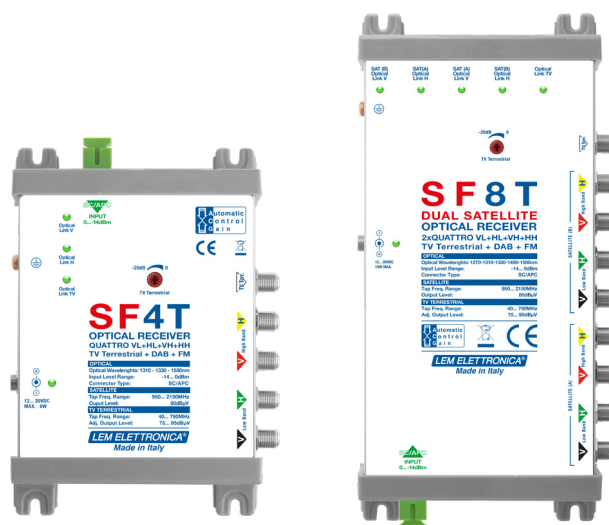
SCF516/8 set to Distribution of two satellites and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre to a standard dual nine wire multiswitch for further distribution via coaxial cable

The headends **TXWBT** and **TXWDM** convert transmit over a single-mode fibre optical cable the terrestrial feeds and the transponders of two satellites received from two Wide Band LNB. The optical signals are received by the optical converter **SCF516/8** set to be a virtual dual LNB Quattro. The dual Quattro and the terrestrial outputs can feed any nine wire multiswitch.

SF4T

SF8T

- Virtual LNB Quattro emulation
- 1 output for TV Terrestrial / DAB / FM
- Optical link monitor Led
- A.G.C. for each output
- Level adjuster for TV terrestrial signal



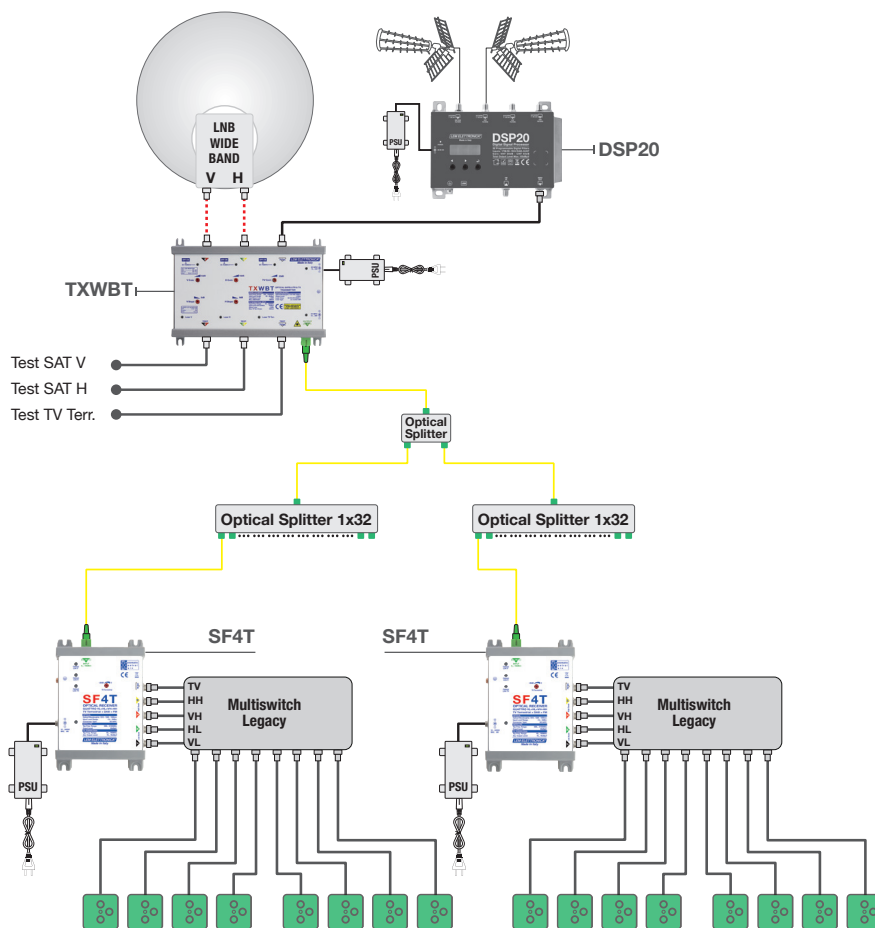
Optical receiver of a single satellite and terrestrial feed (TV/FM/DAB). The satellite outputs emulate Quattro LNB outputs.

Ready for
UHD TV

WARRANTY **5** YEARS

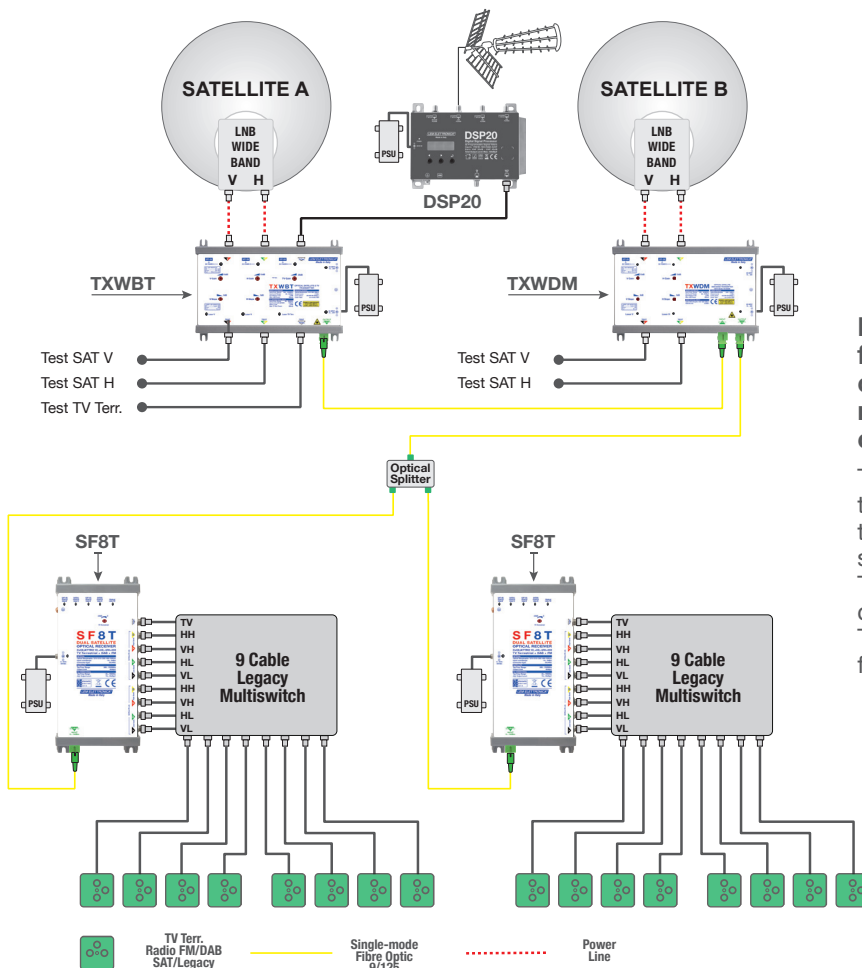


MODEL		SF4T		SF8T	
OPTICAL INPUT	n°	1			
SATELLITE OUTPUTS	n°	4		8	
TERRESTRIAL OUTPUT	n°	1			
OPTICAL					
OPERATION WAVELENGTH	nm	1310 - 1330 - 1550		1270 - 1310 - 1330 - 1490 - 1550	
INPUT POWER RANGE	dBm	-14... 0			
INPUT CONNECTOR TYPE		SC/APC			
RETURN LOSS	dB	≥40			
SATELLITE					
OUTPUT BANDWIDTH	MHz	1xVL-HL (950... 1.950)/ VH-HH (1.100... 2.150)		2xVL-HL (950... 1.950)/ VH-HH (1.100... 2.150)	
OUTPUT LEVEL	dBμV	80			
TV TERRESTRIAL / FM / DAB					
OUTPUT BANDWIDTH	MHz	80... 862			
LEVEL ADJUSTER ATTENUATOR	dB	0... -20			
OUTPUT LEVEL	dBμV	70... 90 (adjustable)			
OTHERS					
ISOLATION V / H	dB	> 30			
OUTPUT RETURN LOSS	dB	> 12			
DC INPUT VOLTAGE RANGE	V	12... 20			
MAXIMUM CONSUMPTION	W	8		16	
OPERATING TEMPERATURE	°C	0... 50			
DIMENSIONS	mm	172x118x38		242x118x38	



Distribution of one satellite and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre to standard five wire multiswitch

The headend **TXWBT** converts and transmits over a single-mode fibre optical cable the terrestrial feeds and the transponders of a satellite received from a Wide Band LNB. The optical signals are received by the optical converter **SF4T** that emulates an LNB Quattro. The outputs VL-HL/VH-HH and the terrestrial output can feed any five input multiswitch.

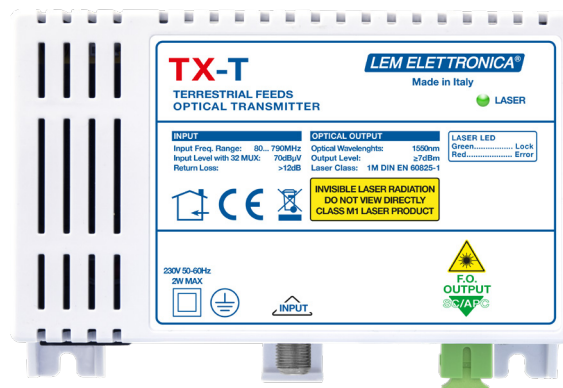


Distribution of two satellites and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre to a standard dual nine wire multiswitch for further distribution via coaxial cable.

The headends **TXWBT** and **TXWDM** convert transmit over a single-mode fibre optical cable the terrestrial feeds and the transponders of two satellites received from two Wide Band LNB. The optical signals are received by the optical converter **ST8T** that emulates two LNB Quattro. The dual Quattro and the terrestrial outputs can feed any nine wire multiswitch.

TX-T

- DIN rail or wall mounting
- Optical monitor Led
- Very compact size



Compact DFB low distortion laser optical transmitters for MATV signals distribution over a sole single-mode fibre optic cable.

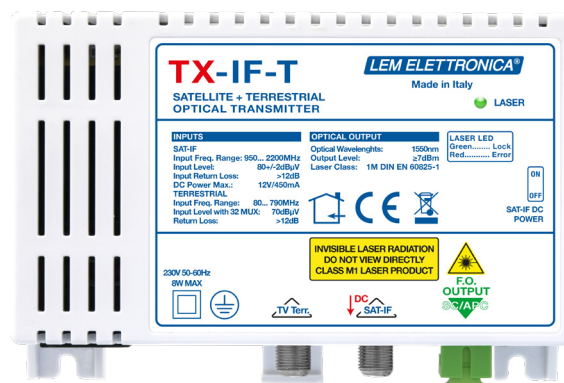
Ready for
UHD TV

WARRANTY **5** YEARS

MODEL		TX-T
RF INPUTS	n°	1
OPTICAL OUTPUT	n°	1
OPTICAL		
OUTPUT WAVELENGTH	nm	1550
LASER TYPE		UN-COOLED MULTI QUANTUM DFB
LASER CLASS		1M, EN 60825-1
OUTPUT POWER	dBm	7
RETURN LOSS	dB	>40
OUTPUT CONNECTOR		SC/APC
TV TERRESTRIAL		
RETURN LOSS	dB	>12
INPUT BANDWIDTH	MHz	80... 862
INPUT LEVEL FOR 32 MUX	dBμV	70
OTHERS		
DC INPUT VOLTAGE	V	230VAC 50/60Hz
MAX. POWER CONSUMPTION	W	2
SHORT-CIRCUIT PROTECTION		ALL INPUTS
DIMENSIONS	mm	135x91x45
OPERATING TEMPERATURE	°C	0... +40

TX-IF-T

- DIN rail or wall mounting
- Optical monitor Led
- Very compact size



Compact DFB low distortion laser optical transmitters for MATV signals distribution over a sole single-mode fibre optic cable. Available also with IF-IF -SAT input.

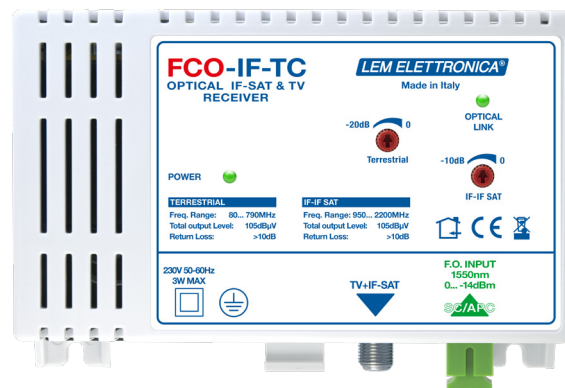
Ready for
UHD TV

WARRANTY **5** YEARS

MODEL		TX-IF-T
RF INPUTS	n°	2
OPTICAL OUTPUT	n°	1
OPTICAL		
OUTPUT WAVELENGTH	nm	1550
LASER TYPE		UN-COOLED MULTI QUANTUM DFB
LASER CLASS		1M, EN 60825-1
OUTPUT POWER	dBm	7
RETURN LOSS	dB	>40
OUTPUT CONNECTOR		SC/APC
SATELLITE		
INPUT BANDWIDTH	MHz	950... 2200
INPUT LEVEL	dBμV	60... 80
A.C.G. RANGE	dB	0... 20
REMOTE FEEDING		12VDC / 450mA
TV TERRESTRIAL		
RETURN LOSS	dB	>12
INPUT BANDWIDTH	MHz	80... 862
INPUT LEVEL FOR 32 MUX	dBμV	70
OTHERS		
DC INPUT VOLTAGE	V	230VAC 50/60Hz
MAX. POWER CONSUMPTION	W	2,5
SHORT-CIRCUIT PROTECTION		ALL INPUTS
DIMENSIONS	mm	135x91x45
OPERATING TEMPERATURE	°C	0... +40

FCO-IF-TC

- Optical monitor Led
- A.C.G.
- Wide band range 80... 2.200 MHz



Optical compact converters for MATV + IF-IF SAT over a sole single-mode fibre optic.

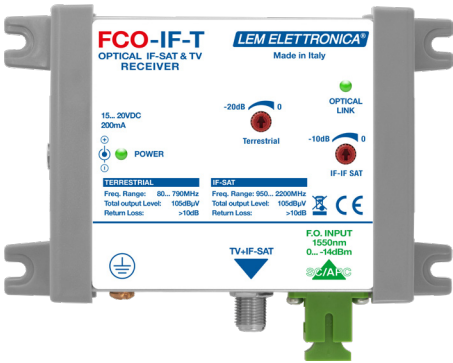
Ready for
UHD TV

WARRANTY **5** YEARS

MODEL			FCO-IF-TC
OPTICAL INPUT			1
RF OUTPUTS			1
OPTICAL			
OPERATION WAVELENGTH	nm		1550
INPUT POWER RANGE	dBm		-15... 0
INPUT CONNECTOR TYPE			SC/APC
RETURN LOSS	dB		>40
SATELLITE			
OUTPUT BANDWIDTH	MHz		950... 2.200
OUTPUT LEVEL	dBμV		85
TV TERRESTRIAL / FM / DAB			
OUTPUT BANDWIDTH	MHz		80... 862
OUTPUT LEVEL	dBμV		80
OTHERS			
OUTPUT RETURN LOSS	dB		> 12
INPUT VOLTAGE	V		230VAC
MAXIMUM CONSUMPTION	W		3
OPERATING TEMPERATURE	°C		0... 50
DIMENSIONS	mm		135x91x45

FCO-IF-T

- Optical monitor Led
- A.C.G.
- Wide band range 80... 2.200 MHz



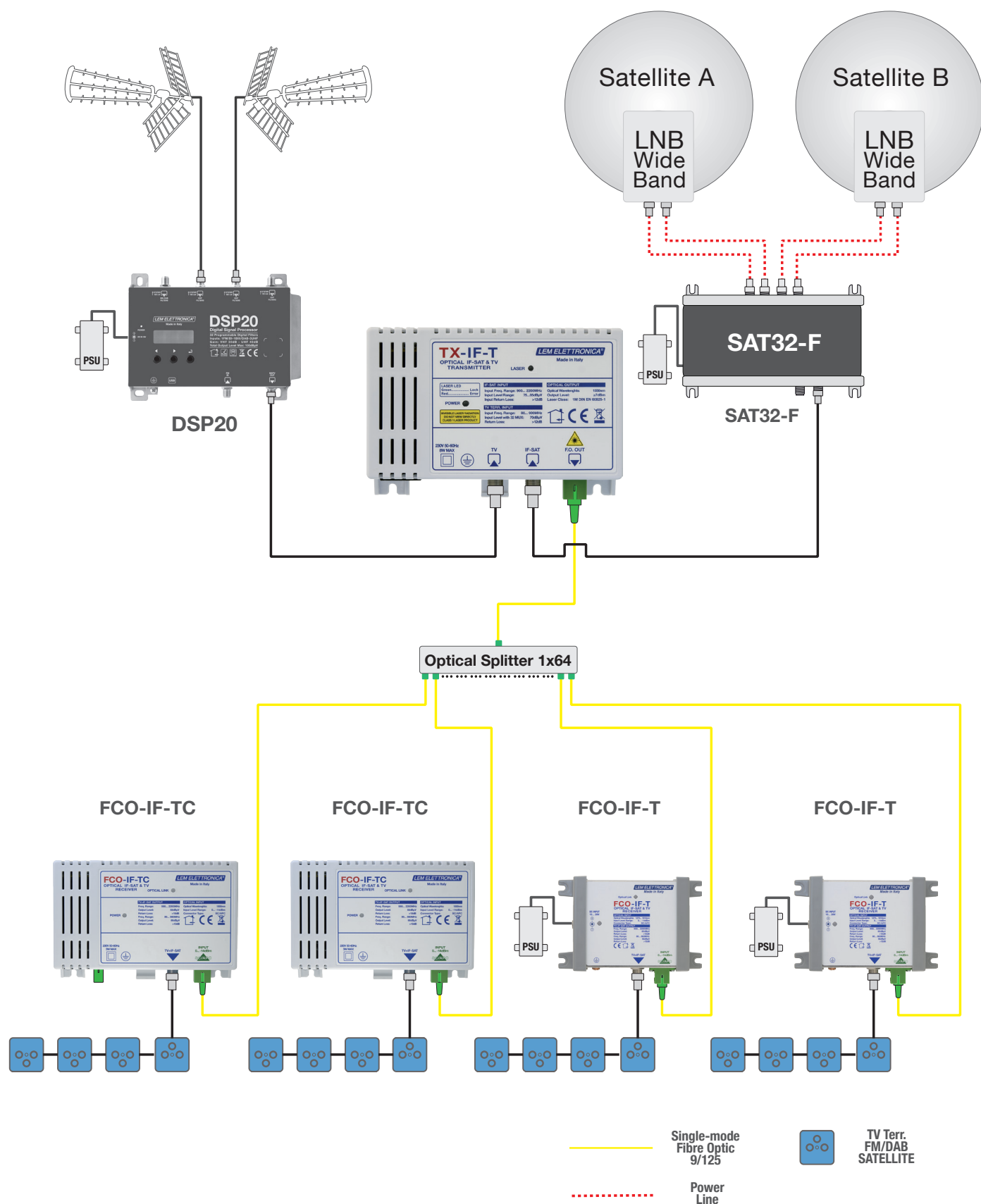
Optical compact converters for MATV + IF-IF SAT over a sole single-mode fibre optic.

Ready for
UHD TV

WARRANTY **5** YEARS

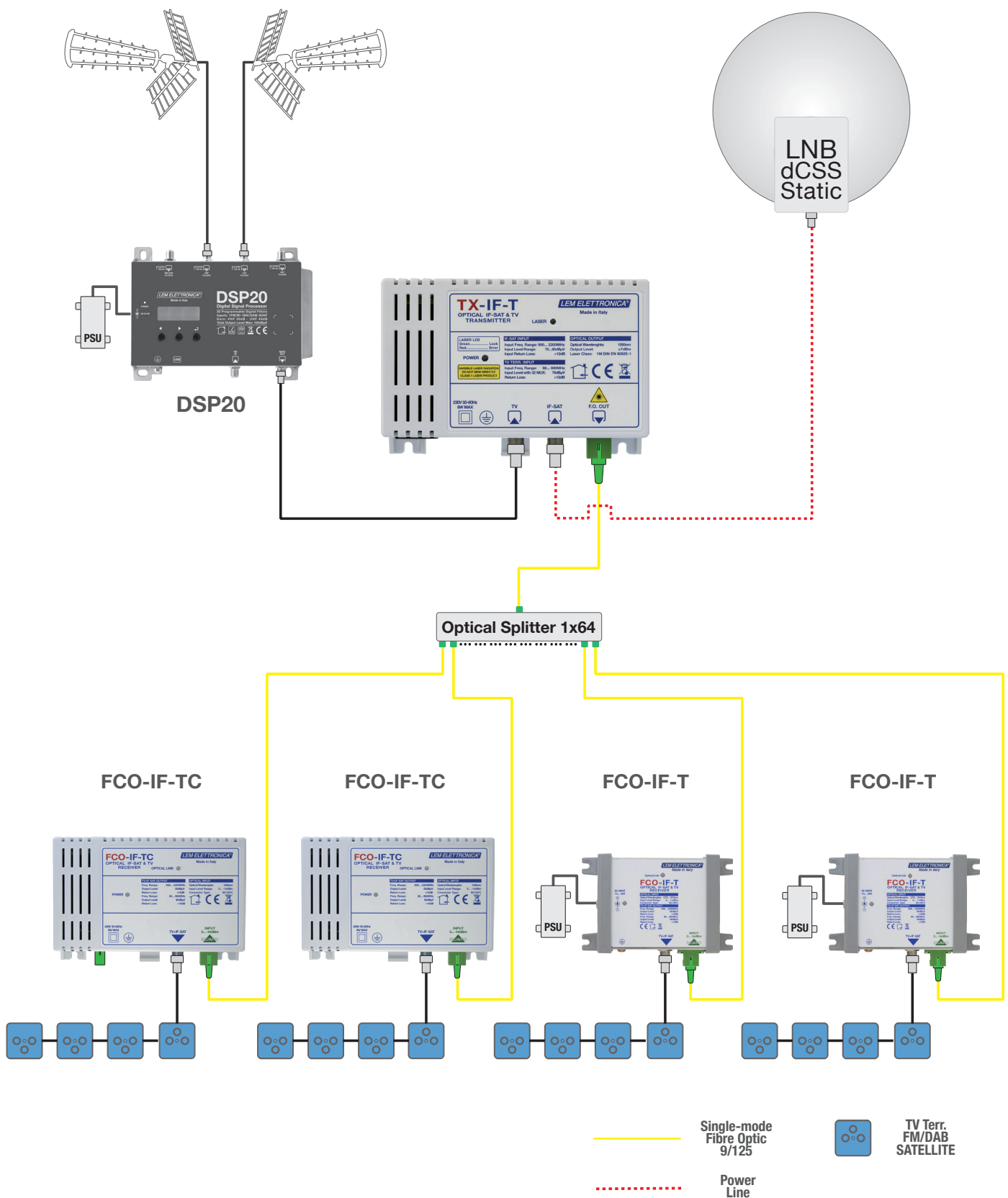
MODEL			FCO-IF-T
OPTICAL INPUT			1
RF OUTPUTS			1
OPTICAL			
OPERATION WAVELENGTH	nm		1550
INPUT POWER RANGE	dBm		-15... 0
INPUT CONNECTOR TYPE			SC/APC
RETURN LOSS	dB		>40
SATELLITE			
OUTPUT BANDWIDTH	MHz		950... 2.200
OUTPUT LEVEL	dBµV		85
TV TERRESTRIAL / FM / DAB			
OUTPUT BANDWIDTH	MHz		80... 862
OUTPUT LEVEL	dBµV		80
OTHERS			
OUTPUT RETURN LOSS	dB		> 12
INPUT VOLTAGE	V		12... 20VDC
MAXIMUM CONSUMPTION	W		3
OPERATING TEMPERATURE	°C		0... 50
DIMENSIONS	mm		80x159x35

MATV & IF-IF SAT FIBRE OPTIC TRANSMITTERS AND CONVERTERS



Distribution of IF-IF SAT and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre PON.

The headend **TX-IF-T** converts and transmits over a single-mode fibre optical cable the terrestrial feeds and the IF-IF SAT output of the satellite digital processor **SAT32-F**.



Distribution of IF-IF SAT and terrestrial feed (DTT; FM; DAB) over a single-mode optical fibre PON.

The headend **TX-IF-T** converts and transmits over a single-mode fibre optical cable the terrestrial feeds and the IF-IF SAT output of a dCSS LNB programmed in static mode.

SPLC



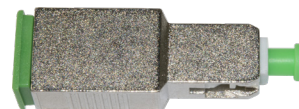
MODEL		SPLC2	SPLC4	SPLC8	DPLC12
SPLITTERS TYPE		PLC			
SPLITS	n°	2	2	8	12
CONNECTOR TYPE		SC/APC			
CABLE TYPE		Single Mode 2.0 mm			
OPERATING WAVELENGTH	nm	1260... 1650			
INSERTION LOSS	dB	4	7,3	10,5	13
LOSS UNIFORMITY	dB	0,4	0,6	0,8	1
POL. DEPENDENT LOSS	dB	0,2	0,2	0,2	0,2
RETURN LOSS	dB	≥50			
DIRECTIVITY	dB	55			
WAVELENGTH LOSS	dB	0,3	0,3	0,3	0,4
OPERATING TEMPERATURE	°C	-40... +85			



MODEL		SPLC16	SPLC24	SPLC32
SPLITTERS TYPE		PLC		
SPLITS	n°	16	24	32
CONNECTOR TYPE		SC/APC		
CABLE TYPE		Single Mode 2.0 mm		
OPERATING WAVELENGTH	nm	1260... 1650		
INSERTION LOSS	dB	13,7	15,5	17
LOSS UNIFORMITY	dB	1,2	1,2	1,3
POL. DEPENDENT LOSS	dB	0,25	0,3	0,4
RETURN LOSS	dB	≥50		
DIRECTIVITY	dB	55		
WAVELENGTH LOSS	dB	0,5	0,5	0,6
OPERATING TEMPERATURE	°C	-40... +85		

ASC

- Connector type SC/APC
- Operating Wavelength 1260... 1650
- For single-mode optical fiber



MODEL		ASC3	ASC5	ASC7
ATTENUATION	dB	3	5	7
CONNECTOR TYPE		SC/APC		
CABLE TYPE		Single Mode		
OPERATING WAVELENGTH	nm	1260... 1650		
ATTENUATION ACCURACY	dB	+/- 0,5		
RETURN LOSS	dB	≥65		
MAXIMUM OPTICAL INPUT POWER	mW	200		
OPERATING TEMPERATURE	°C	-40... +85		



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