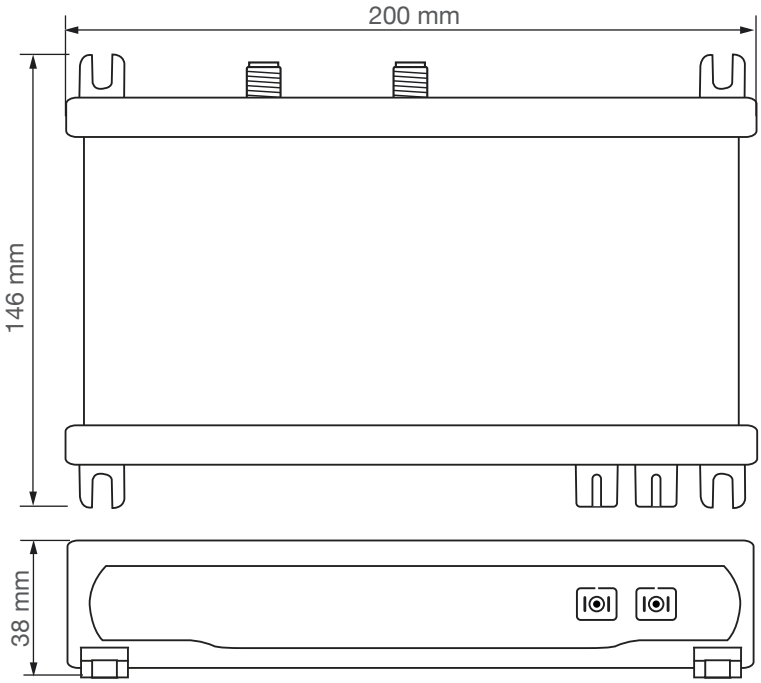
LEM ELETTRONICA®

TXWDMe

Optical Transmitter
User manual

- Multi-wavelength system
- Optical input with integrated CWDM
- Wide Band LNB inputs
- SAT inputs with A.G.C.
- Supplied with power supply



Ready for **UHDTV**

MADE IN ITALY

Rel. 1.0

MODEL		TXWDMe
RF INPUTS	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	6
INPUT WAVELENGTHS LOOP THROUGH	nm	1310 - 1330 - 1550
INPUT CONNECTOR		SC/APC
OUTPUT CONNECTOR		SC/APC
RETURN LOSS	dB	>40
SATELLITE		
INPUTS BANDWIDTH	MHz	250... 2.400
INPUT RANGE LEVEL	dBµV	70... 90
A.C.G. RANGE	dB	20
INPUT RETURN LOSS	dB	>12
LNB REMOTE FEEDING		4,50W (15VDC/300mA)
OTHERS		
DC INPUT VOLTAGE	V	12... 20
MAX. POWER CONSUMPTION WITHOUT EXTERNAL LOAD	W	2,4
MAX. POWER CONSUMPTION WITH EXTERNAL LOAD	W	6,9
SHORT-CIRCUIT PROTECTION		ONLY SAT INPUT
DIMENSIONS	mm	146x200x38
OPERATING TEMPERATURE	°C	0... +50

DESCRIPTION OF SYMBOLS AND ELECTRICAL SAFETY	
	The equipment complies with the CE requirements
	The equipment is designed for indoor use only
	Equipment grounding terminal
	This symbol indicates that the equipment complies with the class II equipment safety requirements
	To avoid the risk of electric shock, do not open the equipment.
	Invisible Laser Radiation avoid direct exposure to beam
INVISIBLE LASER RADIATION DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS CLASS 1M LASER PRODUCTS	Class 1M laser product. Do not watch directly with optical instruments
	The equipment is compliant with RoHS 2011/65EU
	Dispose according to local authorities recycling processes

Safety instructions

1. Read carefully these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions
5. Do not expose this apparatus to extreme temperatures
6. Do not install this apparatus near water or expose to rain and moisture
7. Place the apparatus in a dry and well-aired location
8. Install the unit on a vertical wall, or in a waterproof cabinet with a minimum IP55 rating, and fix it safely using the provided fixing plugs
9. Do not install the unit lying flat or on its top
10. Connect the power adapter cord to a detachable power supply socket
11. Unplug the apparatus during lighting storms or when unused for long time
12. Only use accessories specified by the manufacturer
13. Do not remove the cover without disconnecting from the mains first
14. Ambient temperature should not be lower than 0°C and higher than 50°C
15. Please allow air circulation around the apparatus

Installation warnings

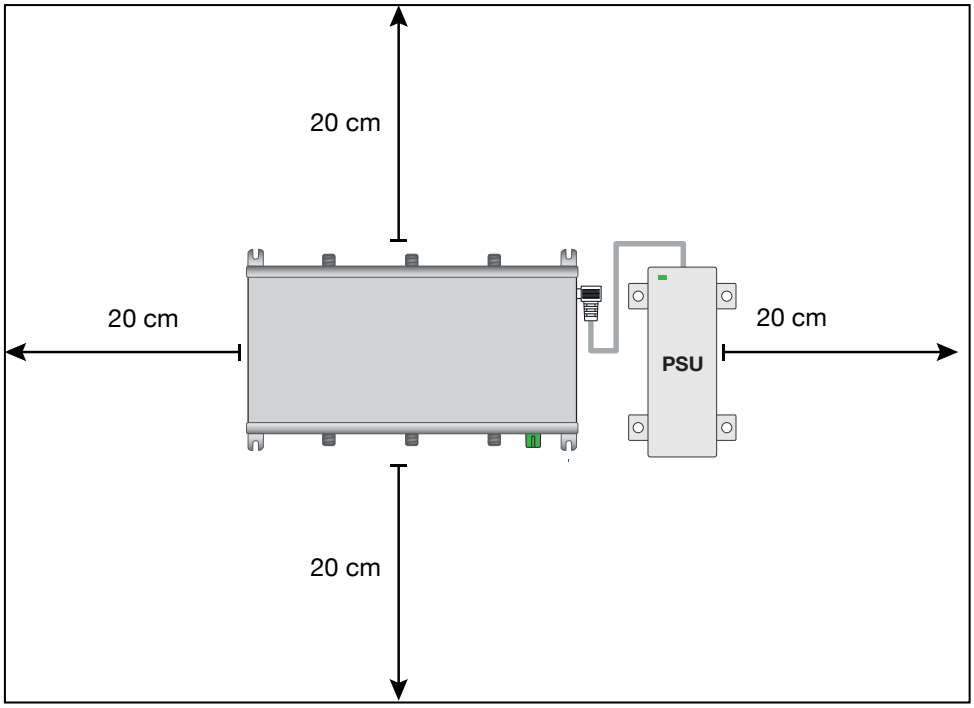
INVISIBLE LASER RADIATION
DO NOT VIEW DIRECTLY WITH
OPTICAL INSTRUMENTS
CLASS 1M LASER PRODUCTS

Place the apparatus and the power supplier in a dry and well-aired location

Install the unit on a vertical wall, or in a waterproof cabinet with a minimum IP55 rating.

Use only the power supplier provided with the amplifier.

The use of not-original power suppliers determines the not-compliance of the product and can cause malfunctions and void the warranty



TXWDMe DESCRIPTION

Box Content

01 **TXWDMe** Optical transmitter

01 Power supplier unit YS12V-120100E.J

01 User manual

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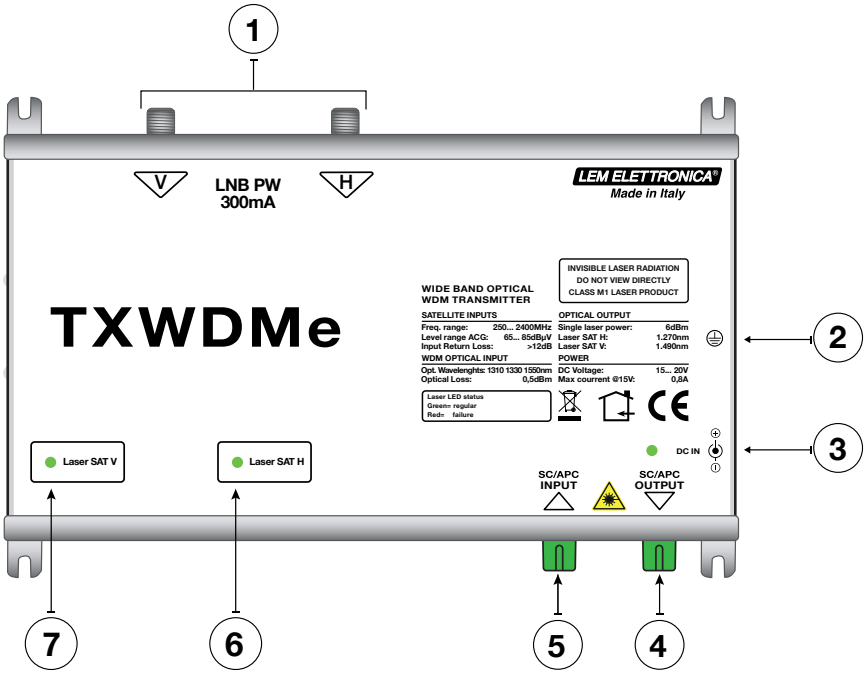
1. **Wide Band LNB V - H inputs**
2. **Earth terminal**
3. **DC Input and power Led**
4. **SC/APC Optical Output**
5. **SC/APC Optical Input**
6. **Satellite H Laser status LED**
7. **Satellite V Laser status LED**



LED MONITOR DESCRIPTION

DC Input Led

Off= No power at the DC input

Green= DC Power

Laser Led

Off= Laser inactive

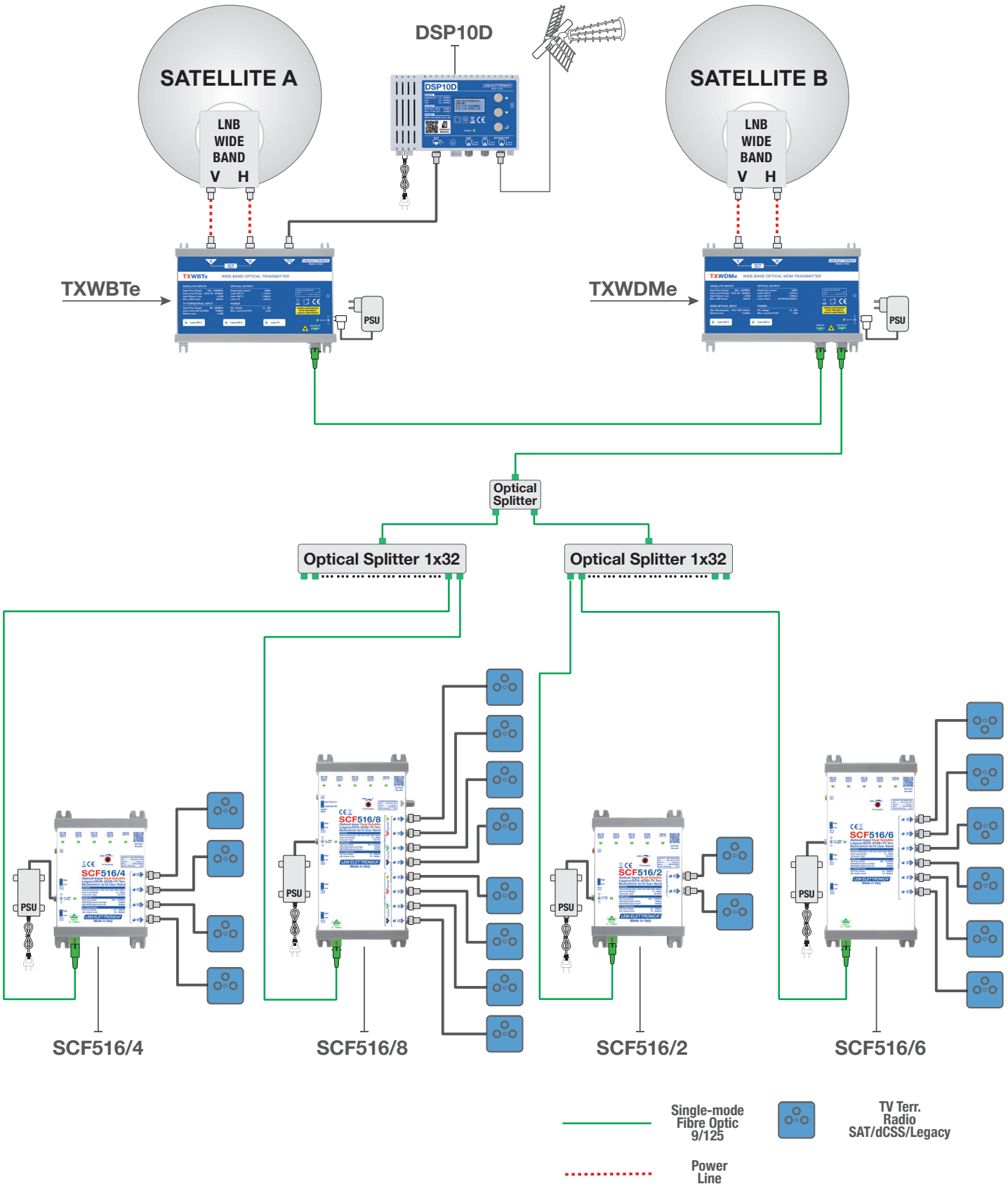
Green= Laser active

Red= Laser malfunction

Requirements for V and H Wideband LNB inputs

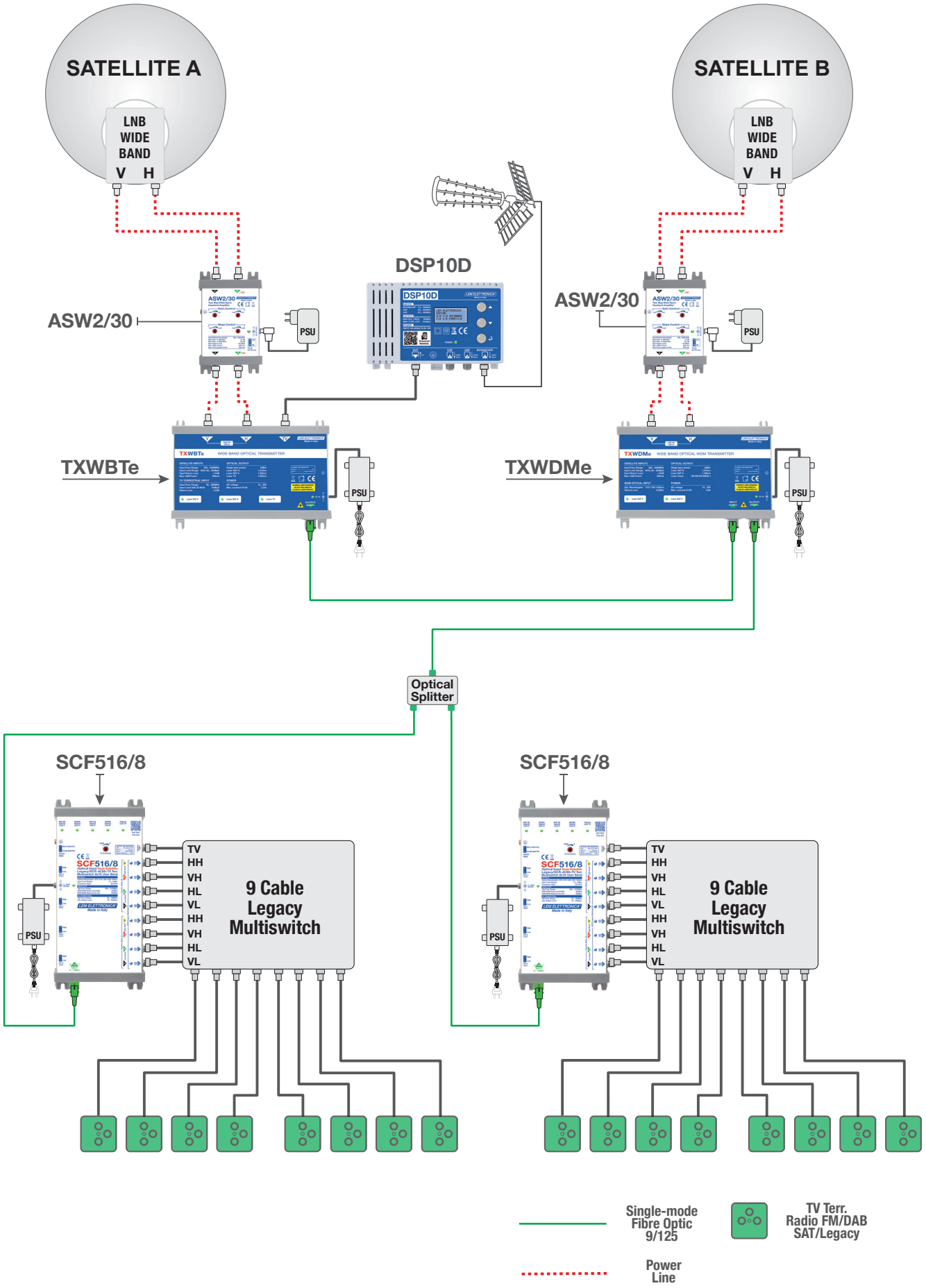
To compensate for variable propagation conditions of satellite RF signal levels, the V and H inputs of the **TXWDMe** transmitter are equipped with automatic gain control (AGC). For optimal performance of the **TXWDMe** optical transmitter, the transponders received from the Wideband LNB must be pre-equalized and have a signal level between **70 and 90 dBµV.**

In the presence of long coaxial cable runs between the Wideband LNB and the **TXWDMe** transmitter, it is necessary to use a wideband input amplifier such as the **ASW2/30**, which features gain and slope adjustment.



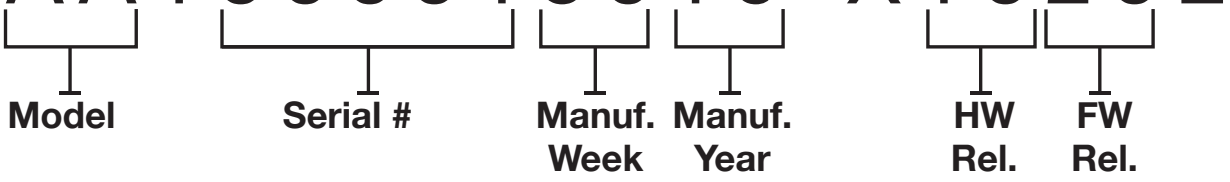
Distribution of two satellite and terrestrial feed (DTT, FM, DAB) over a single-mode optical fibre

The headends **TXWBTe** and **TXWDMe** 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.



The signals transmitted via satellite from one orbital position are received by a Wideband LNB. To compensate for attenuation loss and signal imbalance due to the length of the coaxial cables, a Wideband ASW2/30 amplifier is used. The signals received from satellite (A), along with terrestrial signals (DTT, FM, DAB), are converted into optical format by the TXWBTe transmitter. The signals received from satellite (B) are converted into optical format by the TXWDMe transmitter, which includes an integrated CWDM optical input for connecting and combining the optical signals coming from the TXWBTe transmitter. By selecting the “Quattro” mode on the SCF516/8 multiswitch, it operates as if connected to two Quattro LNBs. In this mode, standard 9-input multiswitches with Legacy outputs can be used.

Label with serial and tracking data



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