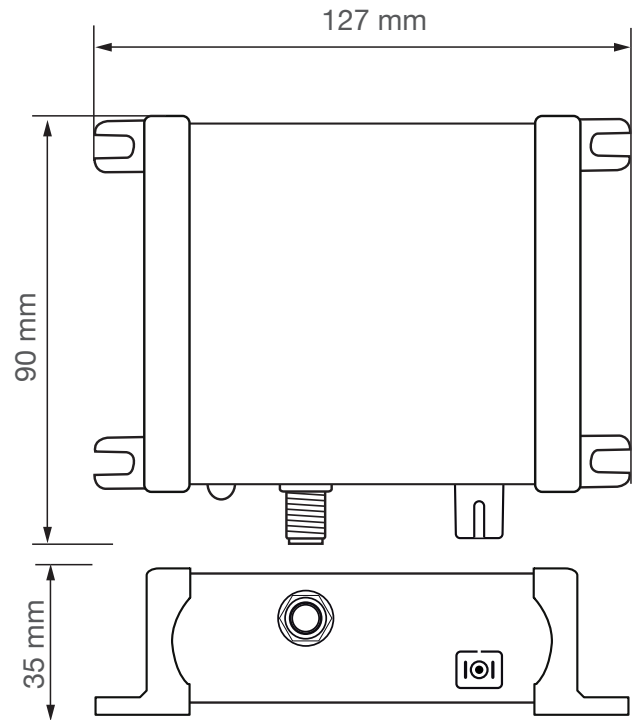


# INSTALLATION MANUAL

## Optical receiver FCO-IF-T

- Up to 64 PON
- 0... -14dBm optical range
- Adjustable TV Terrestrial output level
- Adjustable IF-SAT output level
- Led optical link



Ready for **UHDTV** **MADE IN ITALY**

Rel. 1.0

### OPTICAL RECEIVER

OPTICAL INPUT 1

RF OUTPUTS 1

#### OPTICAL

OPERATION WAVELENGTH nm 1550

INPUT POWER RANGE dBm -14... 0

INPUT CONNECTOR TYPE SC/APC

RETURN LOSS dB  $\geq 40$

#### SATELLITE

OUTPUT BANDWIDTH MHz 950... 2.200

LEVEL ADJUSTER RANGE dB 0... -10

MAX TOTAL OUTPUT LEVEL dB $\mu$ V 105

#### TV TERRESTRIAL / FM / DAB

OUTPUT BANDWIDTH MHz 80... 790

LEVEL ADJUSTER RANGE dB 0... -20

MAX TOTAL OUTPUT LEVEL dB $\mu$ V 105

#### OTHERS

ISOLATION TV TERR./SATELLITE dB  $> 40$

OUTPUT RETURN LOSS dB  $> 12$








INPUT VOLTAGE RANGE VDC 12... 20

MAXIMUM CONSUMPTION W 3,0

OPERATING TEMPERATURE  $^{\circ}$ C 0... 50

DIMENSIONS mm 127x90x35



<b>DESCRIPTION OF SYMBOLS AND ELECTRICAL SAFETY</b>	
	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.
	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



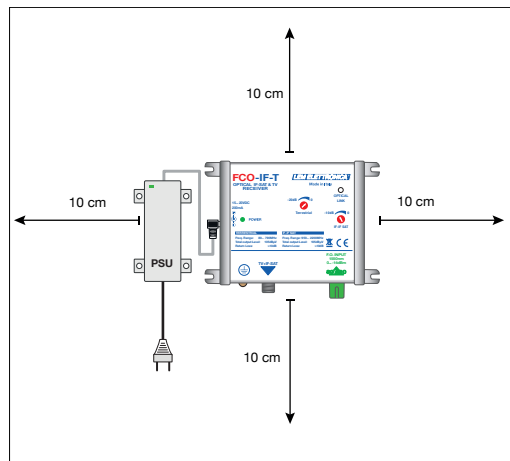
## Installation warnings

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, and fix it safely using the provided fixing plugs

Use only the power supplier provided with the amplifier.

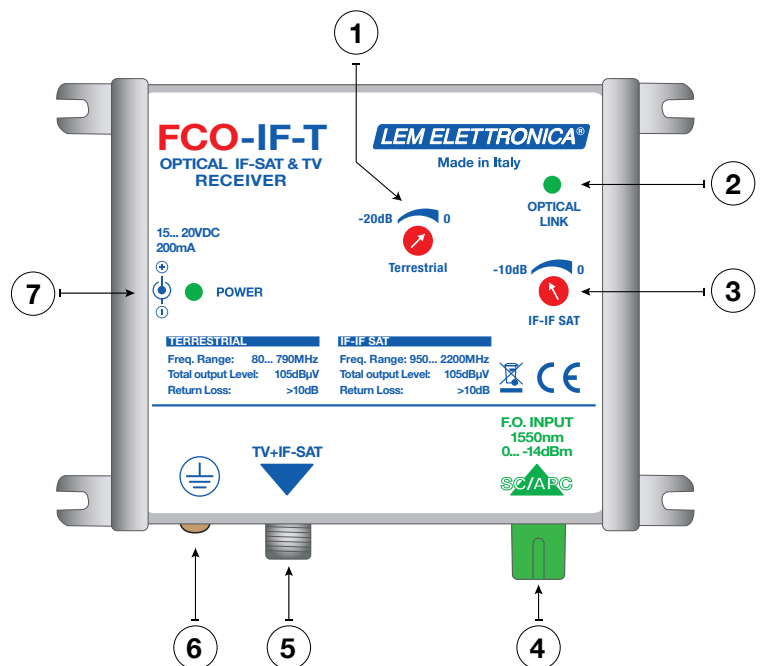
The use of not-original power suppliers determines the not-compliance of the product and can cause malfunctions and void the warranty

## Recommended distance



## FCO-IF-T Description

- ① TV terrestrial level adjuster
- ② Optical link
- ③ IF-SAT output level adjuster
- ④ SC/APC Optical input
- ⑤ FM,DAB,DTT/IF-IF SAT output
- ⑥ Ground bonding
- ⑦ DC input + Power led



Optical signals higher than 0dBm can damage the **FCO-IF-T** in PON with less than 4 optical points add at least a 7dBm optical attenuator.

### MONITOR LED

#### DC Input

Off= No power

Green= Power

#### Optical Link

Off= No optical link

Green= Optical link

The optical receiver **FCO-IF-T** must be used with the transmitters **TX-T** e **TX-IF-T**. For a correct transmitter / receivers set up please follow the tables below.

### SATELLITE FEEDS

Number or Optical points	Optical Attenuation	TX-IF-T Transmitter Satellite input level (single TPX)	FCO-IF-T max. Satellite output level (single TPX)
4	- 7	80 dB $\mu$ V	100 dB $\mu$ V
8	- 10	80 dB $\mu$ V	94 dB $\mu$ V
16	-13,5	80 dB $\mu$ V	87 dB $\mu$ V
32	- 17	80 dB $\mu$ V	80 dB $\mu$ V
64	- 21	80 dB $\mu$ V	73 dB $\mu$ V

With 32 DVB-S/S2 TPX

### TERRESTRIAL FEEDS

Number or Optical points	Optical Attenuation	TX-IF-T / TX-T Transmitter terrestrial input level (single MUX)	FCO-IF-T max. Terrestrial output level (single MUX)
4	- 7	70 dB $\mu$ V	90 dB $\mu$ V
8	- 10	73 dB $\mu$ V	90 dB $\mu$ V
16	-13,5	76 dB $\mu$ V	90 dB $\mu$ V
32	- 17	82 dB $\mu$ V	90 dB $\mu$ V
64	- 21	87 dB $\mu$ V	86 dB $\mu$ V

With 32 DVB-T/T2 MUX

Number or Optical points	Optical Attenuation	TX-IF-T / TX-T Transmitter terrestrial input level (single MUX)	FCO-IF-T max. output level (single MUX)
4	- 7	73 dB $\mu$ V	93 dB $\mu$ V
8	- 10	76 dB $\mu$ V	93 dB $\mu$ V
16	- 13,5	79 dB $\mu$ V	93 dB $\mu$ V
32	- 17	85 dB $\mu$ V	93 dB $\mu$ V
64	- 21	90 dB $\mu$ V	90 dB $\mu$ V

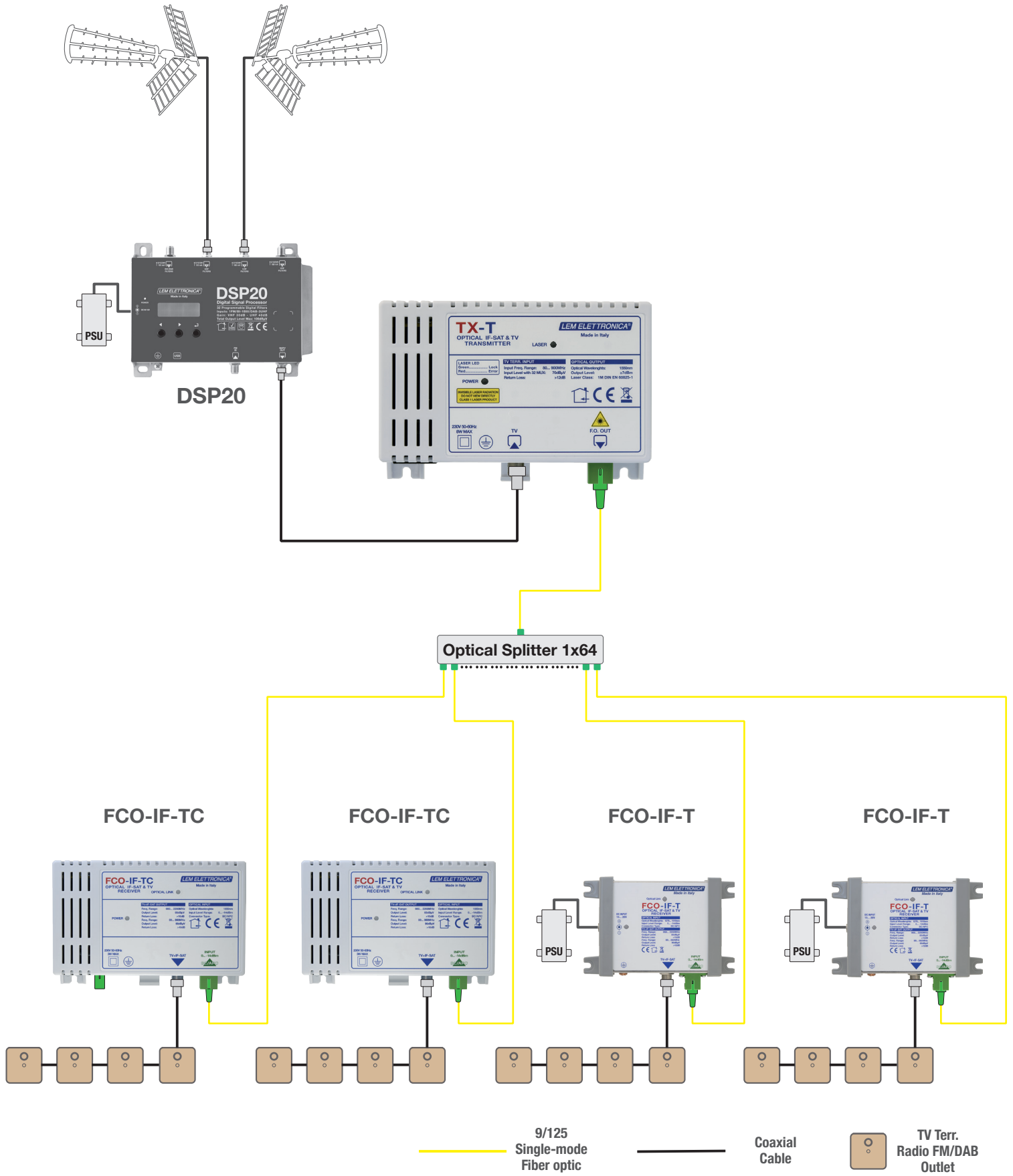
With 16 DVB-T/T2 MUX

Number or Optical points	Optical Attenuation	TX-IF-T / TX-T Transmitter terrestrial input level (single MUX)	FCO-IF-T max. output level (single MUX)
4	- 7	76 dB $\mu$ V	96 dB $\mu$ V
8	- 10	79 dB $\mu$ V	96 dB $\mu$ V
16	- 13,5	82 dB $\mu$ V	96 dB $\mu$ V
32	- 17	88 dB $\mu$ V	96 dB $\mu$ V
64	- 21	90 dB $\mu$ V	90 dB $\mu$ V

With 8 DVB-T/T2 MUX

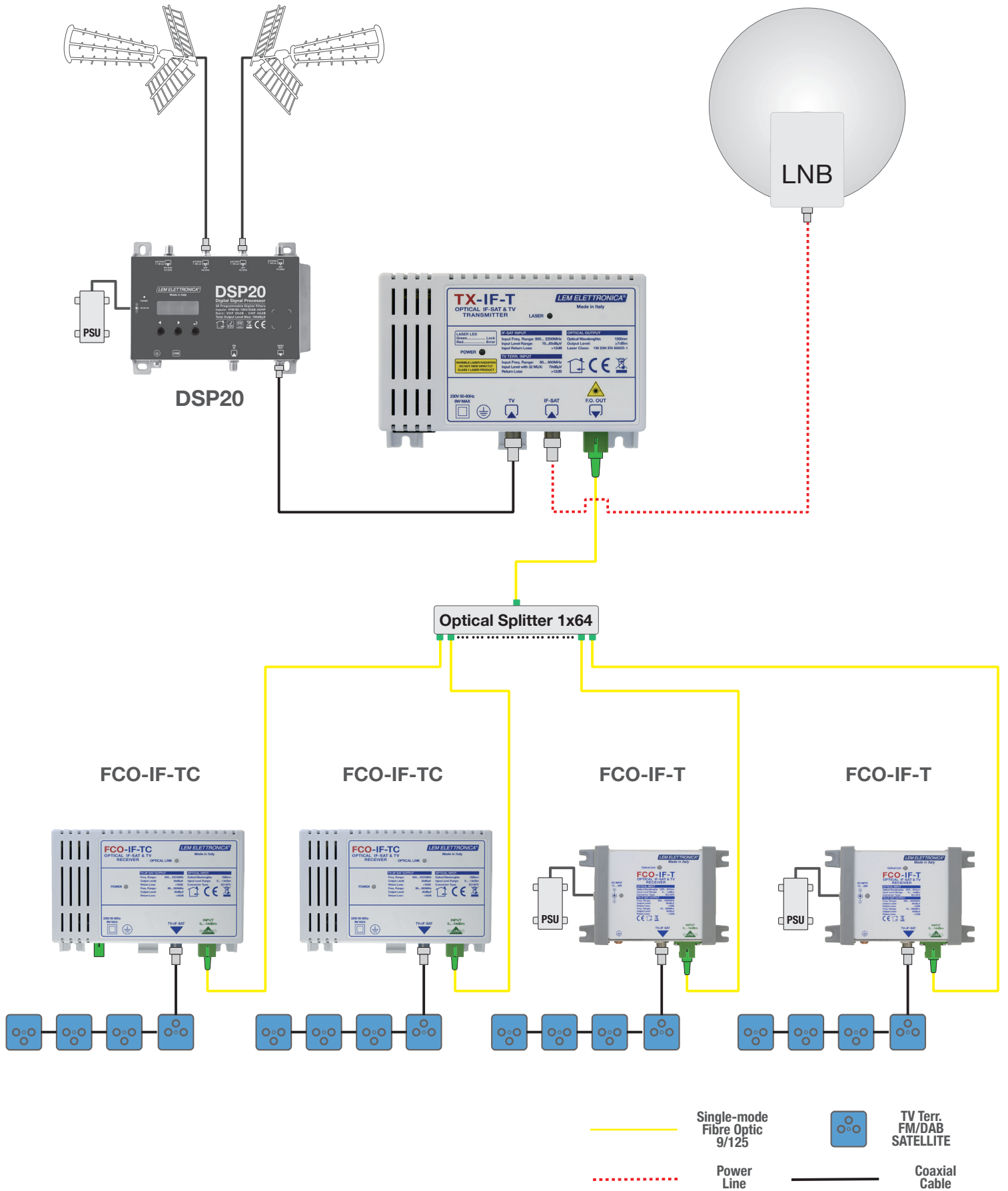


**FM and DAB signal level must be at least 10dB lower than the DTT signal**



**Distribution of 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.



**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-SAT output.

## Label with serial and tracking data

AA1000015019-X1020L

AA	100001	5	0	19	X	1	0	2	0	L
Model	Serial #	Manuf. Week	Manuf. Year			HW Rel.	FW Rel.			