

User Manual

Twin-dSCR-Converter
with Optical Input

OTD 32-16

Item No: 57004064



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DCT DELTA AG keeps the right to change the specification of hardware and/or software of the device described in this manual.

DCT DELTA AG cannot be made responsible for damages caused by the usage of this device. All information are subject to change.

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1. INTRODUCTION

Product Description

The OTD 32-16 is a Fiber Optik Converter that can be used for installations with optical distribution networks.

Der OTD 32-16 offers:

- 1 optical Input for three wavelengths
- 2 dSCR/Legacy outputs with AGC
- 1 terrestrial output with AGC
- 1 DC input.

Each of the both SAT-RF outputs can be used for a wide choice of satellite receivers :

- In Legacy mode the outputs are working like those of a standard multiswitch.
- In SCR mode each output supports up to 16 user bands with all Unicable versions. This includes OLT, SCR, CSS, EN50494, EN50607 and newer versions.
- Because both outputs are independent, the installation can have a mixture of Legacy and SCR connections.

The terrestrial RF output provides frequencies from 40 to 790 MHz.

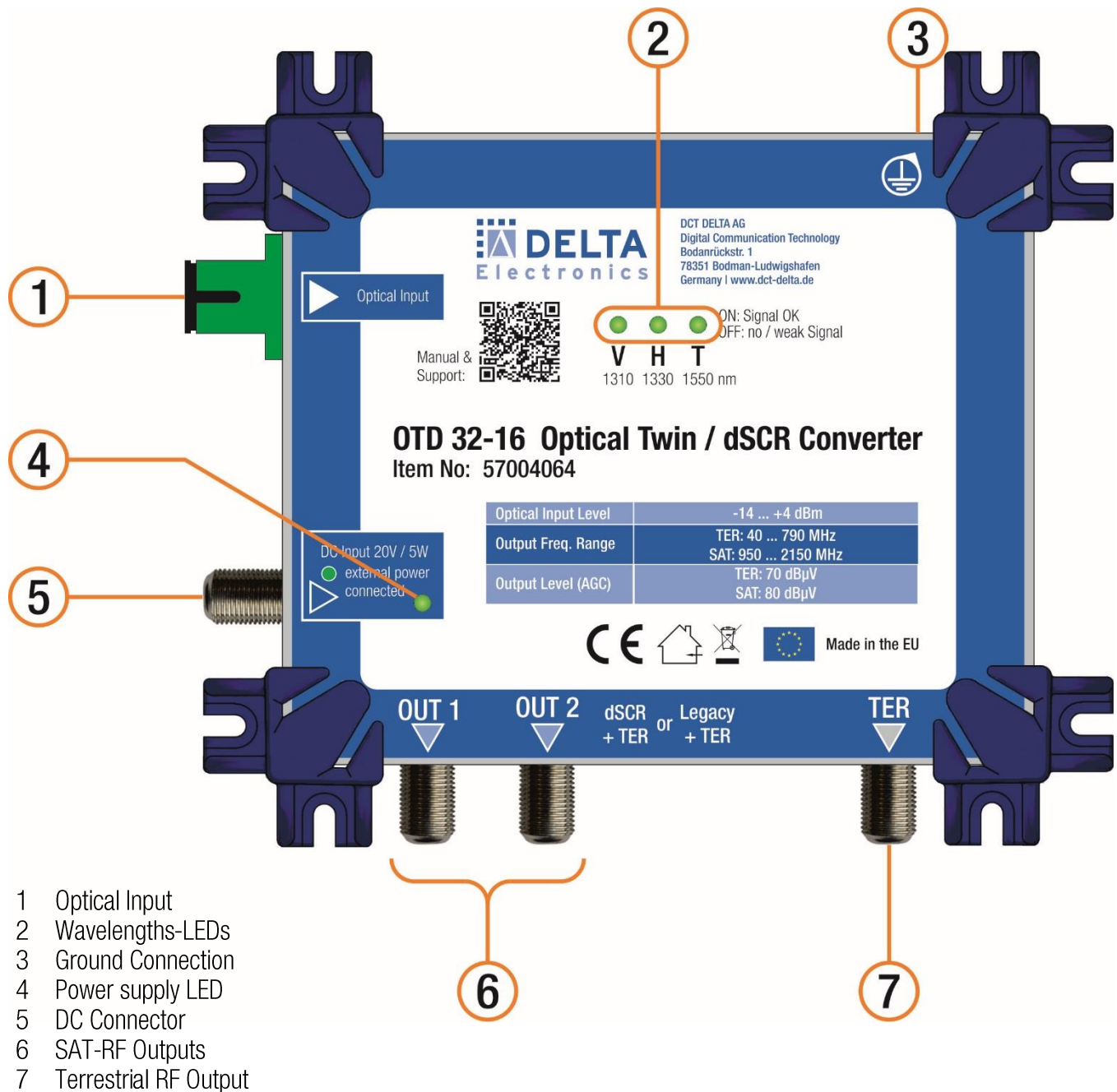
The OTD 32-16 can be powered through the SAT-RF outputs or through a separate power supply at the dedicated DC connector. We suggest the use of the DCT DELTA power supply NT 20-3.3 F, item no. 57003401.

Packing Content

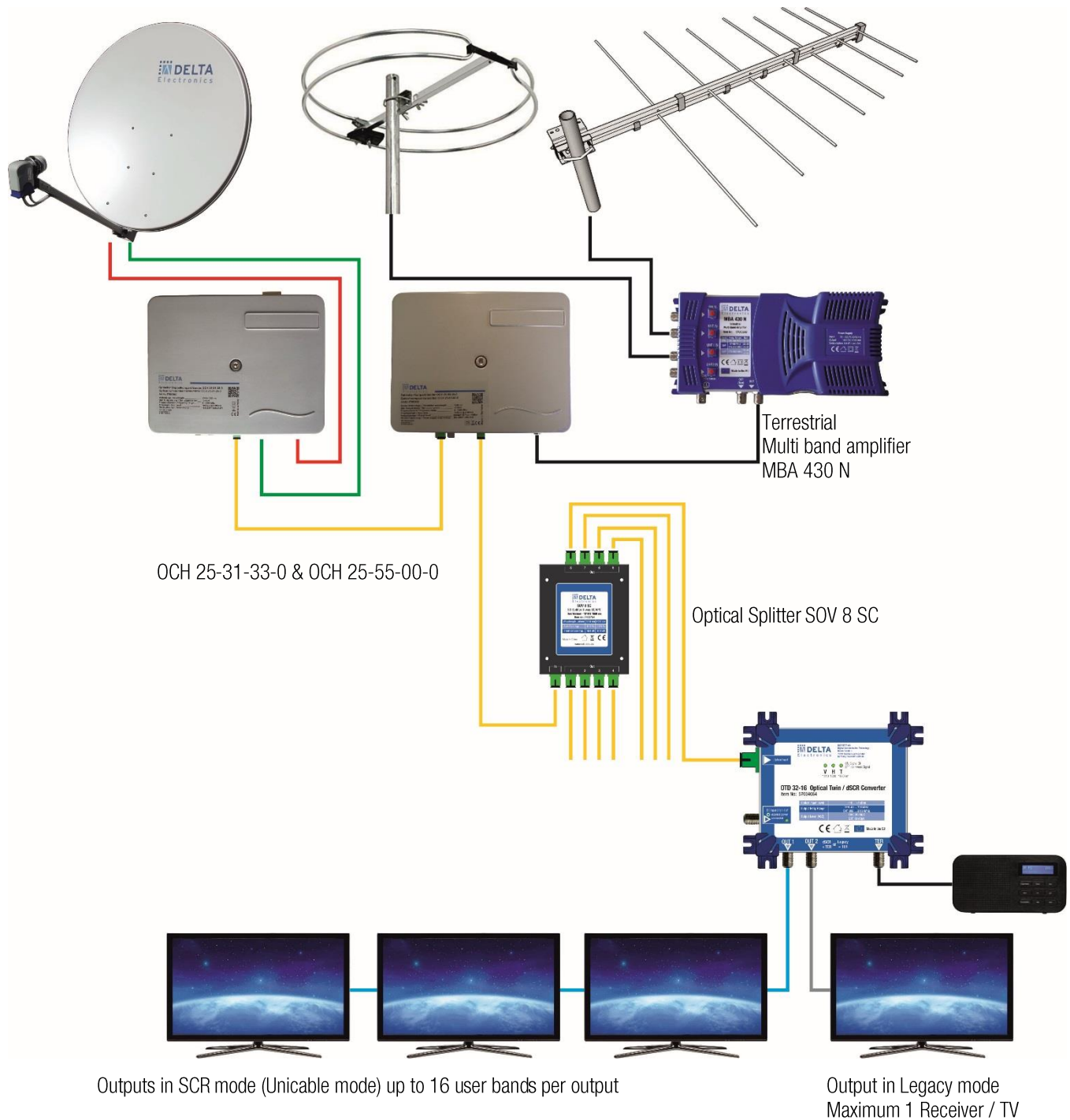
1x digital SCR multiswitch OTD 32-16 (without power supply)

1x User Manual

Product Elements



2. INSTALLATION



3. CONFIGURATION OF THE OTD 32-16

Optical Input ①

The optical input of the OTD 32-16 is realized as SC/APC connection. The optical input signal must provide the three required wavelengths (1310, 1330, 1550 nm) in order to guarantee correct operation. The signals transmitted through these wavelengths must origin from DELTA's optical transmitters OCH 25-31-33-0 and OCH 25-55-00-0. The strength of the optical signal must be in the range of -14 to +4 dBm. If necessary, use optical attenuators to keep the signal strength in this range. Please pay attention for absolutely cleanliness of the optical connectors.

Wavelengths LEDs ②

The LEDs show the correct reception of the related wavelengths.

If the optical signal is received within the allowed strength, the LED will light in green color.

It is possible to operate the device with only 2 wavelengths (1310, 1330 nm). In this case the LED for the terrestrial signal (1550 nm) stays off and there will be no terrestrial signal at the RF outputs.

Ground Connection ③

You need to connect a proper ground wire to the device. The ground wire needs to be attached to the ground of the building to ensure the electrical equipotential bonding.

Power Supply LED ④

The Power Supply LED shows if a sufficient powering is available. The OTD 32-16 can be powered through the RF outputs as well as with an external power supply. If this LED is not lighting in green color, the provided power is not sufficient. In this case an external power supply is needed.

DC Connector ⑤

The DC connector is used to connect an external power supply.

The connection of a power supply is necessary if the power provided through the Sat-RF outputs (from following user devices like receivers or TV sets) is not sufficient for the operation of the OTD 32-16. If an additional power supply is needed is shown by the Power Supply LED.

We suggest to use the DELTA power supply NT 20-3.3 F, item no. 57003401.

Sat-RF Outputs 6

The four Sat-RF outputs are providing different signals according to the operation mode:

If the connected user device is working in Legacy mode, all satellite transponders of the selected band (VL, HL, VH, HH) are transmitted.

If the connected user device is working in Unicable mode, in the satellite frequency range 16 User bands are available. Within the user bands used by the user device, the requested channels are provided then.

Terrestrial RF Output 7

At the terrestrial RF output, those terrestrial signals are provided, that have has been received through the fiber optic cable at the wavelength of 1550 nm. The terrestrial signal is also provided at all Sat-RF outputs.

Technical support, help for installations and general information about Unicable you can find at:



4. TECHNICAL SPECIFICATION

| OTD 32-16 | |
|---------------------------------------|--|
| Optical | |
| Wavelengths | 1310, 1330, 1550 nm |
| Inputs | 1 |
| Connector type | SC/APC (female) |
| Optical Input level | -14 to +4 dBm |
| Terrestrial | |
| Frequency range | 40 - 790 MHz |
| Outputs * (Trunk) | 1 (F-Type) |
| Output level (AGC) | 70 dB μ V |
| SAT | |
| Frequency range | 950 - 2150 MHz |
| Outputs * (Trunk) | 2 (F-Type) |
| Output Level (AGC) | 80 dB μ V |
| dSCR | |
| dSCR Outputs | 2 |
| Supported Output Modes | SCR + Legacy + DVB-T/DAB/FM |
| SCR Channel Bandwidth | 46 MHz |
| SCR User Bands | 16 |
| SCR Standards (automatic recognition) | BSkyB SCR CENELEC EN50494, CENELEC EN50607, Universal LNB Tone & voltage |
| Legacy Output Power per Txp | Up to -15 dBm, no AGC |
| DiSEqC Commands | DiSEqC conform |

*: unused outputs must be terminated with 75 Ohms terminators (DC blocked).

| Power Supply | | |
|---------------------------------|--|---|
| DC Powering | The OTD 32-16 can be powered through the DC connector or through die SAT-RF Outputs (all F Type) | |
| Operation Indication | Green LED (Front side of the unit) | |
| Voltage | 10 to 20 VDC | 10 to 20 VDC (from connected receivers) 11 to 20 VDC (from power supply) |
| Max. Power Consumption | 5W | |
| DC Through on RF Outputs | Yes (not for terrestrial RF output) | |
| Shortage & Power on Diagnostics | Yes | |
| Earth Connector | 1 | |
| Operation Temperature Range | -20°C to +50°C (Indoor use only) | |

| EN50607 | | EN50494 | |
|---------|-------|---------|-------|
| UB | FREQ. | UB | FREQ. |
| 5 | 985 | 1 | 1210 |
| 6 | 1050 | 2 | 1420 |
| 7 | 1115 | 3 | 1680 |
| 8 | 1275 | 4 | 2040 |
| 9 | 1340 | | |
| 10 | 1485 | | |
| 11 | 1550 | | |
| 12 | 1615 | | |
| 13 | 1745 | | |
| 14 | 1810 | | |
| 15 | 1875 | | |
| 16 | 1940 | | |

5. SAFETY NOTES



Please read the instruction carefully before you connect the device



To avoid fire, shortage and electric shocks:

- Never expose the device to rain or humidity.
- Install the device in a dry place without the danger of humidity or condensation.
- Protect the device against dripping and splashing water.
- Don't place any with liquids filled containers onto the device.
- If liquids run into the device, please pull the power plug immediately.



To avoid overheating:

- Install the device in a well ventilated location. To ensure a good ventilation make sure to keep a minimum distance of at least 10 cm to other devices or walls.
- Don't put any things onto the device, that could block the ventilation holes (newspaper, table cloth, curtains, ...).
- Never place open flames like burning candles onto the device.
- Install the device in a dust free environment.
- Use the device only in environments with moderate humidity.
- Die minimum and maximum operating temperatures need to be maintained in every season.



To avoid electric shock:

- Connect the device only properly grounded.
- The power plug needs to be easily accessible at all time.
- Pull out the power plug before you make any changes on the installation.
- Under no circumstances open the device as long as it is powered.



Maintenance and care



Only use dry and soft cloth to clean the device



Don't use any solvents



For repair and maintenance please contact qualified installers.



Disposal according to local regulations

6. TERMS OF GUARANTEE

DCT DELTA AG guarantees for a period of 24 months after the purchase, that the device is free of material and production defects.

Should the product show any material or production defects during normal application within the guarantee period, DCT DELTA AG will replace or repair the product at its own discretion. Please bring or send the defect device back to your dealer.

The guarantee is only valid for material and production defects and does not cover defects caused by:

- Abuse or usage of the product outside its specification.
- Installation or usage which is not compliant to the local safety regulations
- Usage of unsuitable accessories (Power supplies, adaptors, ...).
- Installation in a not proper environment.
- External sources outside the influence of DCT DELTA AG, like e.g. drop, accident, stroke of lightning, water, fire, insufficient ventilation ...

The guarantee commitment ends even ahead of time if:

- The production date or serial number is not readable anymore or has been changed, deleted, removed or in any other way manipulated.
- The device has been opened or repaired by unauthorized persons.



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