



S/D NAGRA CAM  
(to be purchased separately)

## SAT-DTT transmodulator for two transponders with Common Interface

### art. 16-782 S/D FLEX2-2C

It allows to receive SAT coded transmissions present in 2 transponder (one for each input) and distribute them in a centralized TV antenna system in digital format (COFDM).

The services selected by each transponder can be re-modulated on any of the available output MUXs, optimizing the transmission flow of each MUX, which can contain on average 3/5 remodulated programs.

It is possible to select up to a maximum of 4 MUX output based on the number of services to be distributed. The output MUXs are always adjacent to each other.

It is possible to use no. 2 FlexCAM, which in the case of the TivùSat platform, with the MERLIN encryption, allow decoding up to a maximum of 8 encrypted programs for each one.

It allows to add, remove or substitute a service of the list of previously memorized programs, without a new TV tuning. The module is equipped with non-volatile memory for maintenance of data stored in the event of a power failure.

You can assign a LCN (Logical Channel Number) to each program. Transmodulator has three SAT inputs and one mixing RF output with screw F-type connectors.

It is equipped with useful advanced features, such as:

- Configuration of protection password: it limits the access to the programming settings.
- Generate report: it allows to create a text file with the configuration of the transmodulator to present the list of services offered to the customer.
- Parental Control: allows you to make viewing possible only after entering a password.

Programmable from PC using Offel Manager software (CD with software and Ethernet connection cable supplied). Programmable also remotely through Offel server.

It can be powered by art. 16-722 S/D-A (for single module), art. 16-723 S/D-A3 (up to 3 modules) or art. 16-720 S/D-A (up to 6 modules).

Each module is equipped with two standard DIN connections for a strong hooking.

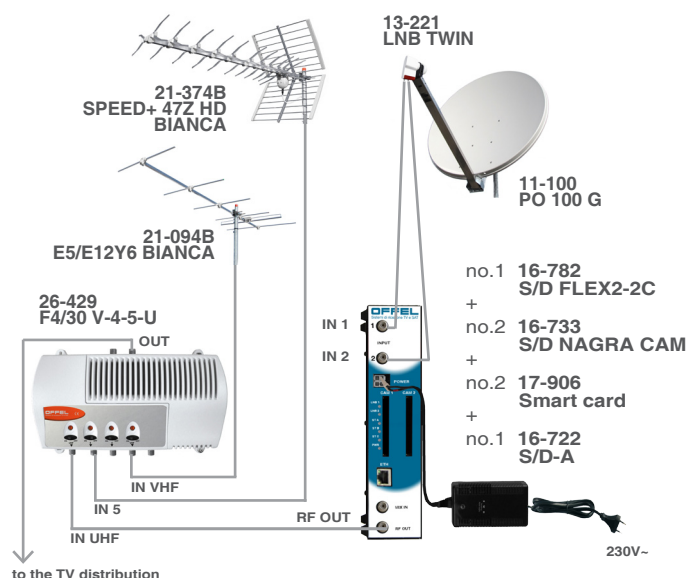


| Code                                      | 16-782                                                                                  |                                |
|-------------------------------------------|-----------------------------------------------------------------------------------------|--------------------------------|
| Item                                      | S/D FLEX2-2C                                                                            |                                |
| <b>INPUT PARAMETERS</b>                   |                                                                                         |                                |
| No. inputs                                | 2                                                                                       |                                |
| Input signals type                        | DVB-S/S2                                                                                |                                |
| No. Common Interfaces                     | 2                                                                                       |                                |
| Input frequencies                         | MHz                                                                                     | 950 ÷ 2150                     |
| Input level                               | dBµV                                                                                    | 42 ÷ 82                        |
| Bandwidth                                 | MHz                                                                                     | 5 ÷ 36                         |
| Modulation type                           | QPSK/8-PSK                                                                              |                                |
| Symbol rate                               | Msp                                                                                     | 1 ÷ 45                         |
| Remote power supply                       | 13/18 V @350 mA, 22 KHz (short-circuit protection)                                      |                                |
| DiSeqC                                    | 1.0                                                                                     |                                |
| <b>COFDM MODULATION</b>                   |                                                                                         |                                |
| COFDM modulation                          | 2K                                                                                      |                                |
| Constellation                             | QPSK, 16QAM, 64QAM                                                                      |                                |
| FEC                                       | 1/2, 2/3, 3/4, 5/6, 7/8                                                                 |                                |
| Guard interval                            | 1/4, 1/8, 1/16, 1/32                                                                    |                                |
| MER                                       | dB                                                                                      | > 40 (typ. 42)                 |
| <b>OUTPUT PARAMETERS</b>                  |                                                                                         |                                |
| No. outputs                               | 1 with loop-through                                                                     |                                |
| Output signals type                       | dB                                                                                      | 1,5                            |
| No. multiplexers                          | DVB-T/C                                                                                 |                                |
| Channel bandwidth                         | up to 4 (adjacent)                                                                      |                                |
| RF OUT frequencies                        | MHz                                                                                     | 7 (VHF), 8 (UHF)               |
| RF OUT adjustable level                   | MHz                                                                                     | 174 ÷ 862                      |
| RF OUT loopthrough loss                   | dBµV                                                                                    | 60 ÷ 80                        |
| Frequency stability                       | ppm                                                                                     | ±10                            |
| In-band level of spurious                 | dBc                                                                                     | < -50                          |
| Out-of-band level of spurious (B = 8 MHz) | dBc                                                                                     | < -75                          |
| <b>GENERAL</b>                            |                                                                                         |                                |
| Operating voltage                         | Vcc                                                                                     | 24                             |
| Power consumption                         | W                                                                                       | 12 + LNB supply                |
| Dimensions                                | mm                                                                                      | 226x175x60                     |
| Packaging dimensions (LxWxH)              | mm                                                                                      | 240x238x64                     |
| Packaging weight                          | Kg                                                                                      | 2                              |
| Operating temperature                     | °C                                                                                      | 0 ÷ +40 (automatic protection) |
| Compliant to                              | EN50083-2:2012/A1:2015;<br>EN303372-2:V1.1.1;<br>EN 55024:2010/A1:2015;<br>EN50581:2012 |                                |

#### Example of using a S/D FLEX2-2C module for receiving a selection of TivùSat programs from 4 transponders

| IN SAT | Satellite    | Freq. (MHz) | Polarity | RF OUT | Received programs                                    |
|--------|--------------|-------------|----------|--------|------------------------------------------------------|
| 1      | Hotbird 13°E | 11.766      | VH       | E21    | Rai 1 HD, Rai 2 HD, Rai 3 HD                         |
|        |              |             |          | E22    | Rai 4 HD, Rai Movie HD, Rai Sport + HD               |
| 2      | Hotbird 13°E | 11.432      | VL       | E23    | 4 HD, 5 HD, 20 HD, Basic                             |
|        |              |             |          | E24    | IRIS, cartoonito, Focus, MEDIASET TGCOM 24, TO crime |

The content of the transponders may change without forewarning depending on the need of providers. Please consult specialized magazines or websites for the updated configuration. The TV channels logo are not our property and are shown only for example. The output channels of transmodulators shown in this example are purely indicative. Be sure to select channels that aren't already used in the television distribution.



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