

## DIGITAL TV MICROWAVE LINKS STL (FIXED) & MOBILE

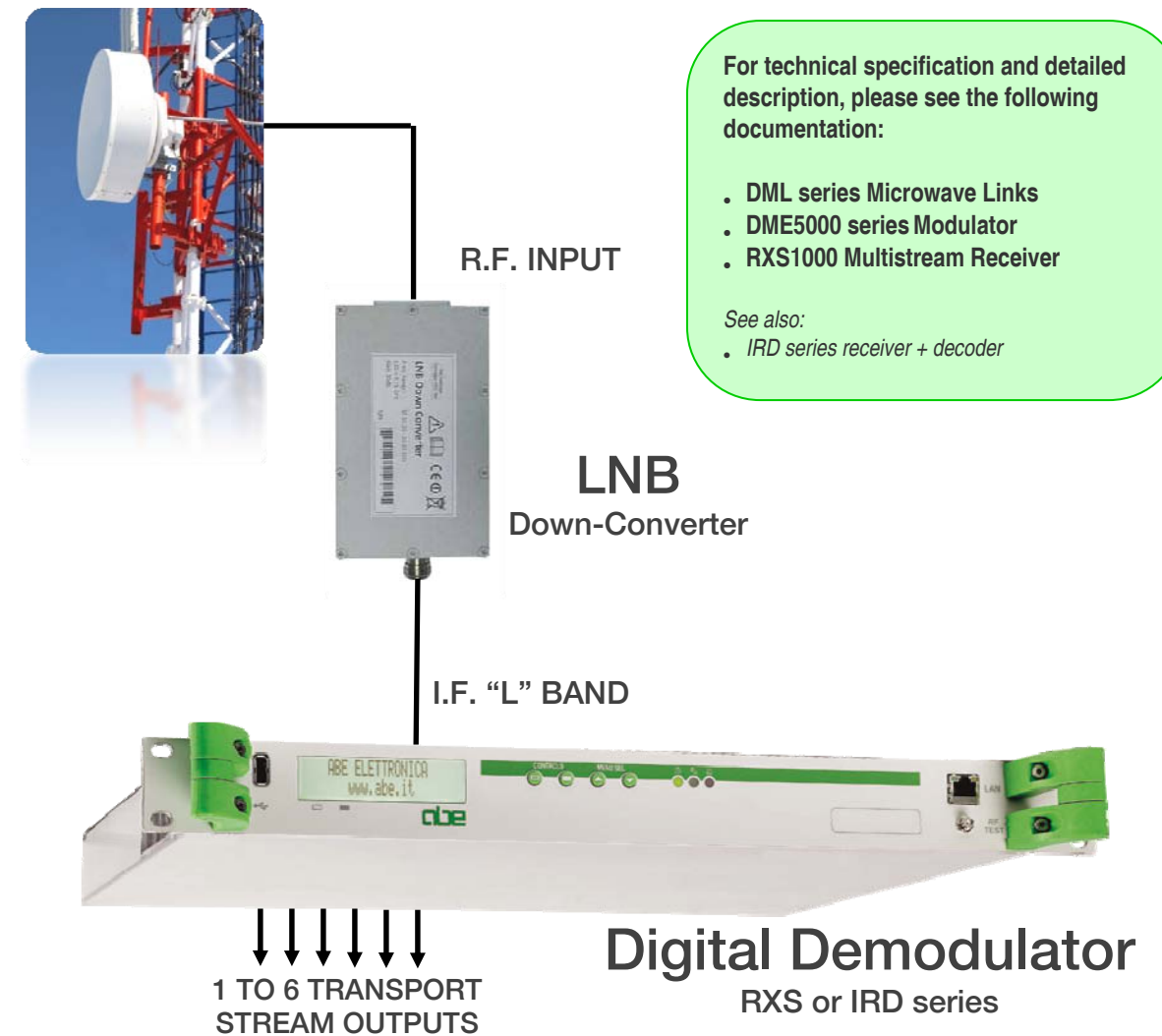
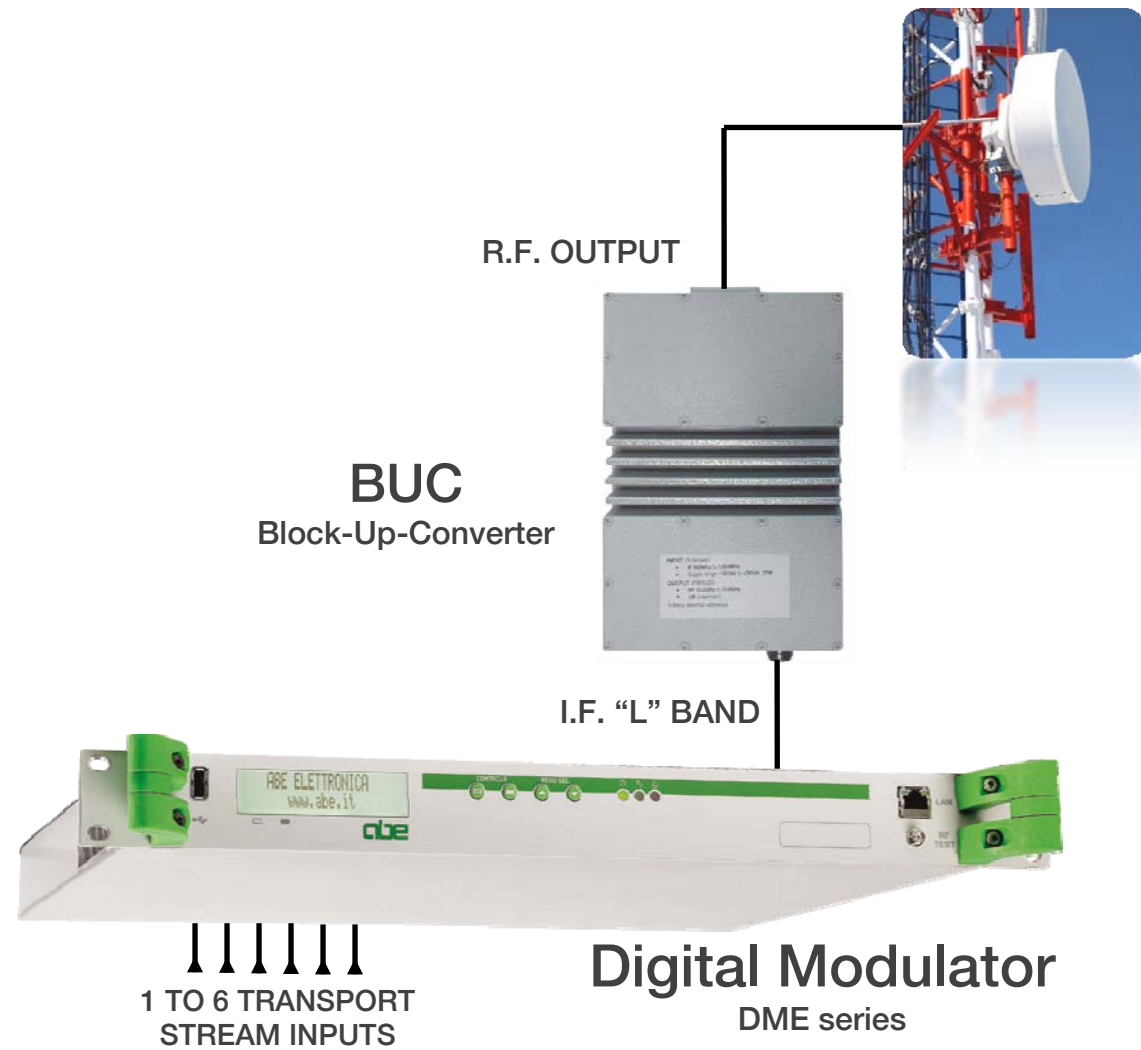
the high quality, professional and cost-effective solution

ABE SOLUTION FOR BACKHAULING  
AND CONTRIBUTION IN TELEVISION BROADCASTING:  
**KEY FEATURES AND MAIN BENEFITS**



# MICROWAVE LINKS “DML” SERIES

ABE SOLUTION FOR BACKHAULING AND CONTRIBUTION IN TELEVISION BROADCASTING



For technical specification and detailed description, please see the following documentation:

- DML series Microwave Links
- DME5000 series Modulator
- RXS1000 Multistream Receiver

See also:

- IRD series receiver + decoder

## KEY FEATURES

- Capable to carry up to #6 different MPEG Transport Streams
- Transparent mode to carry SFN Transport Streams
- High capacity: over 100Mbit/s total net bit rate in 28MHz RF bandwidth
- Frequency Agile in its range (typically 1GHz)
- Several frequency ranges available (6, 7, 8, 10, 13, 14 GHz – other on request)
- Fixed (STL) and mobile (with tripods) applications
- RF heads for outdoor and indoor applications
- Standard input/output interface: ASI - On request: GBEthernet for T.S. over IP
- Analog Video/Audio in/out interfaces (versions with embedded MPEG codecs)

## MAIN BENEFITS

- USE OF THE MOST ADVANCED STANDARD (DVB-S2) FOR BACKHAULING AND CONTRIBUTION IN TELEVISION BROADCASTING
  - NO proprietary modulation schemes and FEC codes (DVB-S2 modulation schemes up to 32APSK are employed)
  - NO proprietary aggregation systems - The aggregation of the Transport Streams (up to #6) is made employing the DVB-S2 MULTISTREAM mode
  - NO proprietary encryption: DVB-S2 Physical Layer scrambling implemented
- EFFICIENT USE OF THE ELECTROMAGNETIC SPECTRUM
  - No overhead for encapsulation to carry multiple Transport Streams
  - Very high efficiency Forward Error Correction Codes (LDPC + BCH)
  - No fixed capacity: parameters (bandwidth, FEC codes, etc.) are optimized in order to obtain the best performance according to the available bandwidth and needed capacity

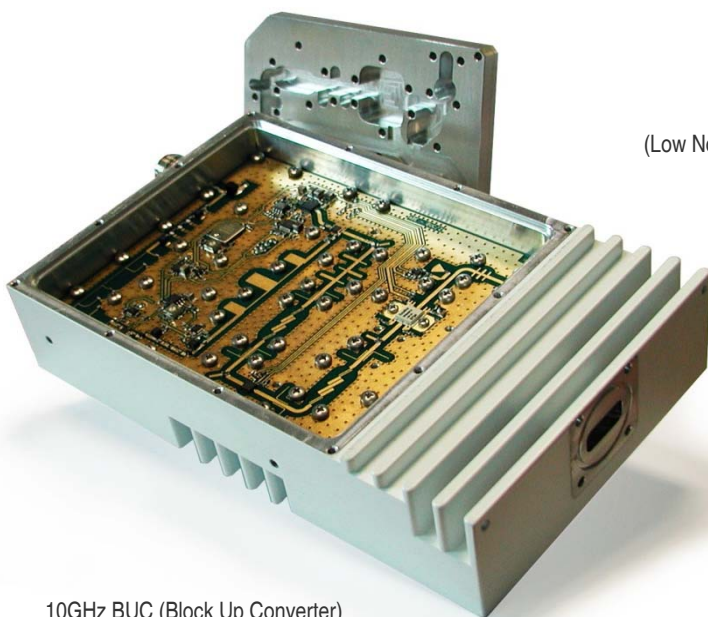


Tripod mounted ODU (OutDoor Unit) for mobile operation



**LINK PERFORMANCES**

<b>Occupied bandwidth (channel):</b>	According to symbol rate and roll-off factor settings (up to 40MHz)
<b>Transport stream bit-rate (Link capacity):</b>	According to modulation scheme, code rate, symbol rate, etc. (up to over 100Mbit/s)
<b>Receiver minimum input signal:</b>	According to modulation scheme, code rate and symbol rate (up to less than -90dBm)
<b>Example 1:</b>	With 14.8MS/s, 35% roll-off, 7/8 code rate, DVB-S QPSK modulation scheme, the net input bit-rate (Transport Stream bit-rate / Link information capacity) is 23.9Mbit/s, enough to accommodate four Video/Dual-Audio programs with excellent broadcast quality, in the same occupied bandwidth (around 20MHz) of an analog TV microwave link and with a receiver threshold of around -90dBm.
<b>Example 2:</b>	With 16MS/s, 25% roll-off, 3/4 code rate, DVB-S2 8PSK modulation scheme, the net input bit-rate (Transport Stream bit-rate / Link information capacity) is up to 34.8Mbit/s in the same occupied bandwidth (around 20MHz) of an analog TV microwave link and with a receiver threshold of around -90dBm.
<b>Example 3:</b>	With 23.3MS/s, 20% roll-off, 9/10 code rate, DVB-S2 32APSK modulation scheme, the net input bit-rate (Transport Stream bit-rate / Link information capacity) is up to 101.5Mbit/s in an occupied bandwidth of a standard Link (28MHz) with a receiver threshold of around -80dBm.



10GHz BUC (Block Up Converter)

7GHz LNB (Low Noise Block Down Converter)



All specifications contained in this document may be changed without prior notice.