

BOARD PLUG-IN EK-UNM/4 “MODEM”



The EK-UNM/4 board is a digital single carrier modem with Adaptive Code Modulation that allows the conversion between the Base Band streams in a intermediate frequency and vice-versa. The card is designed to be inserted in all the versions of the EK-MFR/x frames that allow a completely management and configuration of it.

On the board panel are present 10 SFP physical interfaces:

- 6x IP Gbe ports
- 1x Optional XPIC Connection
- 1x STM-1 port
- 2 x Optional payload interface

The UNM/4 board works with ACM (Adaptive Coding and Modulation) that allows to vary the modulation scheme optimizing the transmission system at the path conditions maximizing the transported bit rate, modem is able to vary from QPSK constellation to 1024QAM constellation.

The card is composed by two demodulators to mitigate multi-path effect and to increase the received threshold, the overall system can work in frequency and space diversity.

The High performance Switch integrated in to the cards and the ACM feature guarantee high performance efficiency in all critical situation where require modulation reduction.



Automatic Modulation Down Shift

Automatic Modulation Up Shift

The Constellation Order will be selected on MER analysis and the Highest and lowest are user selectable.

Features

- Modulation: QPSK - To 1024 QAM with seamless switching
- STM1 Input / Output
- Ethernet ports
- IEEE 1588v2
- Full SFP connections
- High efficiency BCH FEC
- Single carrier modulation
- Integrated Ethernet switch
- Full digital modem solution
- Full duplex simplex and repeater mode
- Transceiver mode
- High performance Ethernet Switch :
 - VLAN Port based
 - QoS PCP/DSCP/Eth Typ
 - RSTP
 - Dynamic and Static MAC Table

Applications

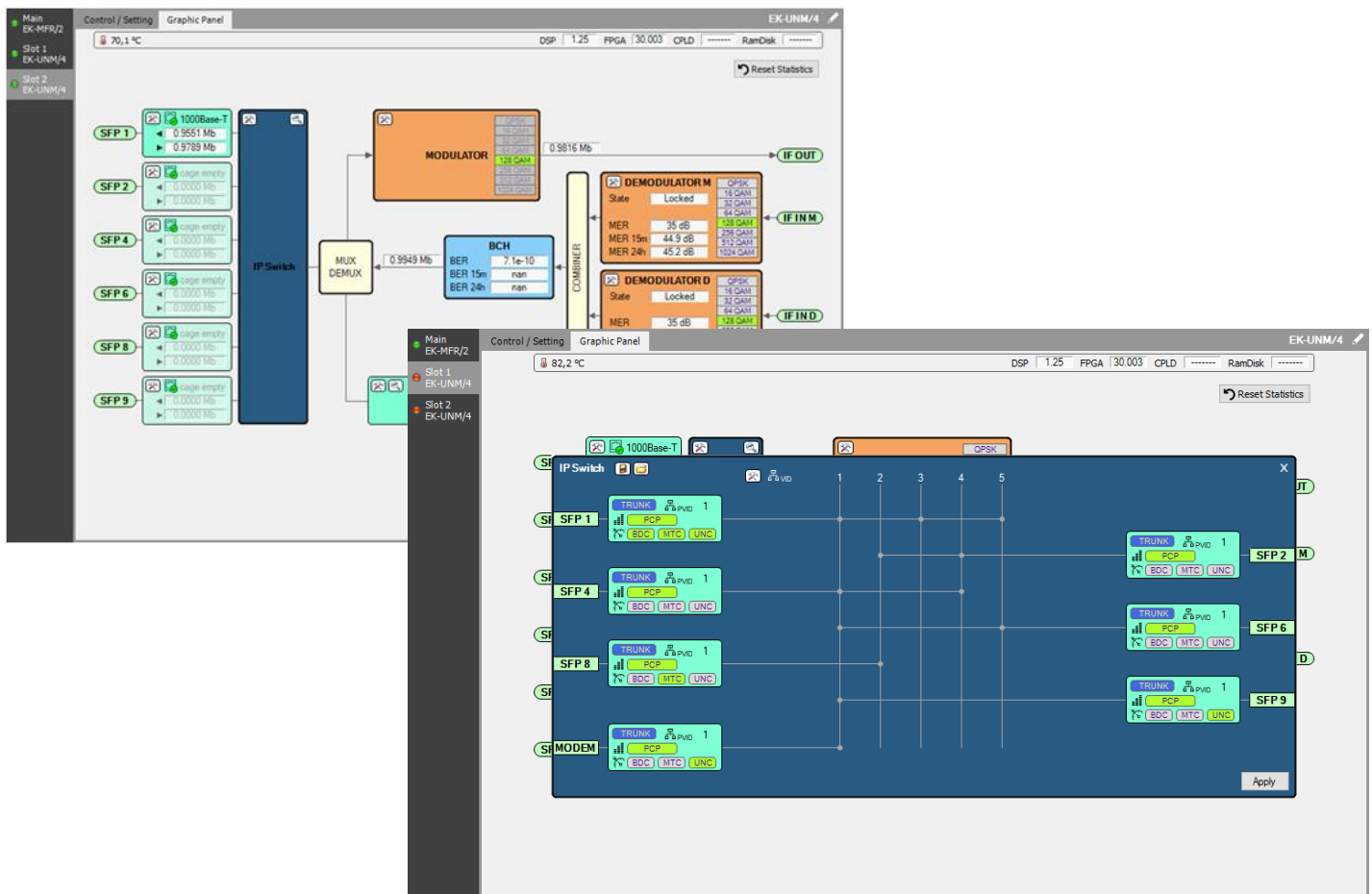
- Long-Haul Radio Links
- Simultaneous ASI+IP Carrying



TECHNICAL SPECIFICATION

COMMON SPECIFICATIONS	
<i>Inputs</i>	GbE, STM-1
<i>Inputs stream type</i>	STM-1, Ethernet.
<i>Outputs</i>	Demodulator output, GBe, STM-1 Internal IF connection
<i>Outputs stream type</i>	STM-1, Ethernet.
SINGLE CARRIER mode	
<i>Constellation</i>	QPSK ,16QAM,32QAM,64QAM, 128QAM, 256QAM, 512QAM, 1024QAM
CLIMATIC CONDITIONS	
<i>Temperature</i>	-5°C ÷ + 70°C @ card level
<i>Humidity</i>	Max. 90%
<i>Altitude</i>	3000m 66kPa

Gui Interface



The graphical configuration interface of the Ethernet switch part allows the management of IP flows with a principle similar to video matrix, this allows a simplification in configuration and management of the part of networking.

This simplified interface allows setting the integrated Ethernet switch to users who are not particularly experienced in IP routing.