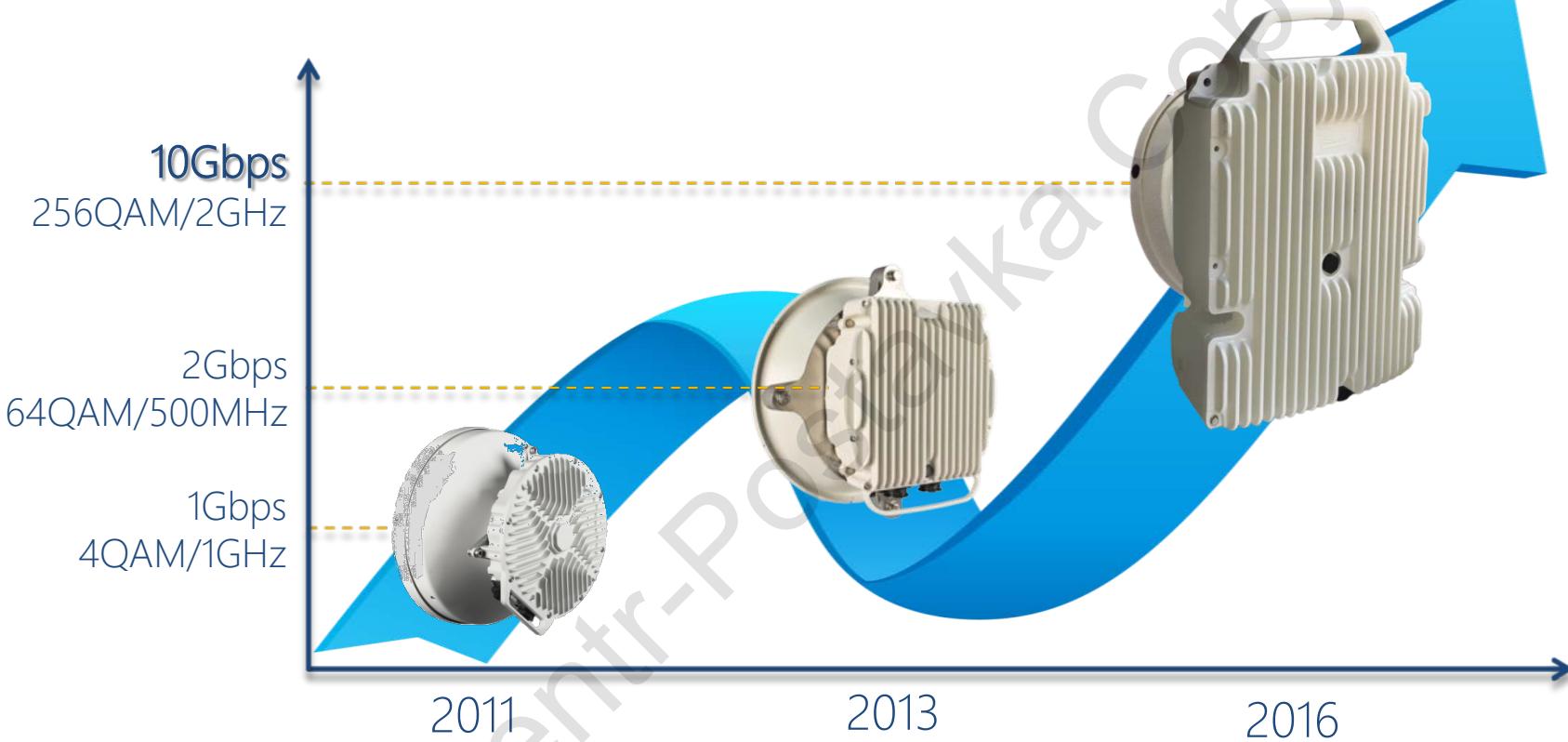


# ALFOplus80 HD/HDX

Решение Full Outdoor  
с пропускной способностью до 10 Гбит/с



# Экспертиза SIAE в разработке решений диапазона E-band



# ALFOplus80HD



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# ALFOplus80HD

*High-Density* applications with metro switch:

- 2 x GbE full traffic ports
  - 2x 10/100/1000baseT ports
  - 2x 1000baseX ports
- 2.5Gbps optical connectivity
- Integrated Layer2 Carrier Ethernet switch
- 250, 500 MHz channel support
- Adaptive Coding & Modulation, from BPSK up to 64QAM
- 1.0 Gbps Ethernet throughput over a 250 MHz channel  
2.0 Gbps Ethernet throughput over a 500 MHz channel



# ALFOplus80HD

## Main Features list

- Hardware configuration:
  - 2x 10/100/1000baseT or 2x 1000baseX/STM-16 (2.5Gbps) traffic ports
  - 1x10/100baseT management port
  - 250/500MHz channel bandwidth
  - BPSK/4/16/64QAM with ACM (both 250 and 500MHz)
  - 10.5k Jumbo frames support
- Data plane ADDITIONAL FEATURES
  - ACM (BPSK/4QAM-st/4QAM/16QAM/64QAM)
  - Ethernet scheduler with 8 queues
  - Hard limiting or WRED
  - Support of advanced priority based on MPLS "Exp bits" (L2.5)
  - Long Ethernet frames fragmentation
  - VLAN rewriting (Hybrid port side)
  - CIR/EIR management, based on external Tag or input traffic priority



# ALFOplus80HD - Интерфейсы



Port for 1+1 protected configuration

2x 10/100/1000baseT with POE  
or  
2x GbE/GbO (SFP up to 2.5Gb)

Dedicated Power Supply

Dedicated Management port

# ALFOplus80HDX

## 10Gbps Ultra High Capacity



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# ALFOplus80HDX

## 10Gbps Ultra High Capacity overview – I

- Throughput: up to 10Gbps (net throughput)
- Interfaces:
  - 4x GE/10GE interfaces
    - 2x 10GE with SFP+<sup>(\*)</sup>
    - 2x GE Electrical (PoE)
    - 1x XPIC/MIMO port
    - 1x Local Management
    - 1x 48VDC
- Supported Channel BW:
  - 250MHz, 500MHz, 750MHz, 1000MHz, 2000MHz
- Supported Modulations with ACM + ACMB:
  - 4QAM, 16QAM, 32QAM, 64QAM, 128QAM, 256QAM
- PTx:  
up to 18dBm with ATPC

<sup>(\*)</sup> SFP+ can be: 1x 10 Gbs Flexible: 1 Gbs/2.5 Gbs/10 Gbs L1 R-LAG protection



# ALFOplus80HDX – FrontHaul Applications

## *CPRI Ultra High Capacity overview*

HW variant for FrontHaul applications

- Interfaces: 4x SFP interfaces operable as:
  - 4x 2.5 Gbps (CPRI option 3)
  - 2x 5 Gbps (CPRI option 5)
  - 1x 10 Gbps (CPRI option 7)
- CPRI compression according to ETSI-ORI standard
  - ~ 50% compression gain
- On air throughput capability (example, w/ compression):
  - 1x 10 Gbps in 1000MHz
  - 1x 10 Gbps in 500MHz w/ 2+0 L1 R-LAG (channel reuse)



# ALFOplus80HDX - Интерфейсы



2x10GbE (SFP up to 10.0Gbps)

Power 48 VDC & Local Mngnt

XPIC/ MIMO IF canceller (roadmap)

2xGbE 100/1000baseT  
with POE

# Решение MultiBand

Легкая модернизация существующих радиоканалов!  
Сверх-высокая пропускная способность!

Благодаря AGS-20 и поддержке протокола LAG на уровне L1, появляется возможность объединять несколько независимых радиоканалов в один.

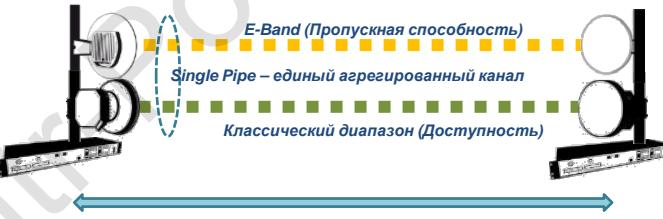
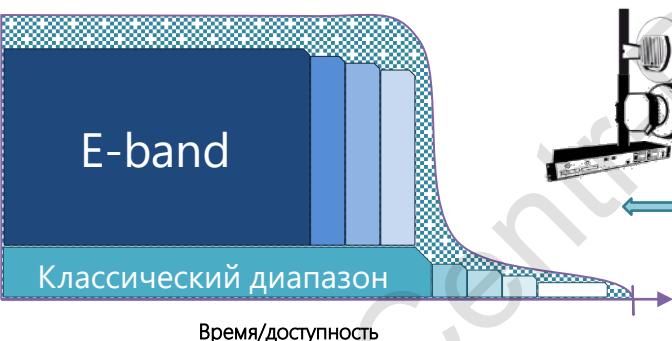
Наряду с увеличением пропускной способности сохраняется высокая надежность радиоканалов, построенных в классическом диапазоне частот.

Скорость

2.5Gbps

0.5Gbps

0.1Gbps



Спасибо за внимание!

