

### PLAN AND DESIGN

From Network Planning to advanced **Network Professional Services**, SIAE MICROELETTRONICA bring 60 years extensive experience in designing telecom networks and delivering solutions in the transport domain.



### MAINTAIN AND SUPPORT

In SIAE MICROELETTRONICA we CARE about your network with full range of **24/7 Technical Support** and **Software Maintenance Services** to protect telecom assets and assure networks are efficient, protect and fully operational.



### INTEGRATE AND DEPLOY

You can benefit of SIAE MICROELETTRONICA's wide experience in **Network Implementation** to build and integrate networks successfully. From **Site Engineering Services** to **Turn Key Project Delivery** learn more about our comprehensive set of roll out services and System Integration.



### PROFESSIONAL SERVICES

SIAE MICROELETTRONICA's **iVeritas Solutions** offers a valuable and holistic approach in **Network Assessment and Performance Optimization** delivering solutions able to revamp and maximize network performance keeping budget under control.



# WIRELESS PRODUCT PORTFOLIO

contact us:

SHORT CATALOG

 [www.siaemic.com](http://www.siaemic.com)  
 [www.linkedin.com/company/siaemic](http://www.linkedin.com/company/siaemic)

SIAE MICROELETTRONICA  
via Michelangelo Buonarroti, 1  
20093 Cologno Monzese, Milano  
Tel. +39 02273251 - Fax +39 0225391585



AGGREGATION PLATFORM	CONNECTIVITY
AGS20 Aggregator 6GE	46 Gbps switching matrix; 2 x GE electrical; 2 x GE SFP (1 / 2,5 / 10Gbps); 2 x GE Combo (electrical / optical)
AGS20 Aggregator 10GE	46 Gbps switching matrix; 2 x GE electrical; up to 4 x GE SFP (1/2,5 Gbps); 4 x GE Combo with POE; up to 16xE1 native/PWE3; up to 2x STM-1 native
AGS20 Outdoor	4 x GE electrical with PoE; 2 x GE SFP (1 / 2,5 Gbps)

Microwave Platform	Frequency	ETSI	FCC	Modulation with ACM	Net Throughput	Connectivity
AGS20	4/42 GHz	up to 112 MHz	30/40* MHz	up to 4096 QAM	1Gbps per IF channel	4 x IF (ODU); 2 x GE electrical; 4 x GE SFP (1 / 2,5 / 10 Gbps); 2 x GE Combo (electrical / optical)
AGS20M	4/42 GHz	up to 112 MHz	30/40* MHz	up to 4096 QAM	1Gbps per IF channel	4 x IF (ODU); 4 x 10GE SFP+, 4xGE electrical, 2 x GE SFP; 8xE1 Native or PWE3
AGS20L	4/42 GHz	up to 112 MHz	30/40* MHz	up to 4096 QAM	1Gbps per IF channel	up to 8 x IF (ODU); 8 x 10GE SFP+; 8 x GE electrical, 8 x GE SFP (1 / 2,5Gbps), 16xE1 native/PWE3 + 4xSTM-1 depending on equipped card
ALFOplus	7/42 GHz	7/56 MHz	10/50* MHz	up to 1024 QAM	450 Mbps	2xGE electrical/SFP
ALFOplus2	6/42 GHz	2x14/112 MHz	2x20/80 MHz	up to 4096 QAM	2 Gbps	2 x GE electrical with POE; 2 x GE SFP (1 / 2,5 Gbps)
TL	4/13 GHz	28/40 MHz	30/40 MHz	up to 512 QAM	up to 4 Gbps	up to 16xSTM-1; up to 4 x GE Combo (electrical / optical)
ALFOplus80HD	70/80 GHz	250/500 MHz	250/500 MHz	up to 64 QAM	up to 2 Gbps	2 x GE electrical/optical (1 / 2,5 Gbps)
ALFOplus80HDX	70/80 GHz	62,5/125/250/500 750/1000/2000 MHz	250/500/750 1000/2000 MHz	up to 256 QAM	up to 10 Gbps	2 x GE electrical with POE, 2x10 GE SFP+

\* on the supported frequency bands

## ALFOplus2

### The RF Multicore Solution

ALFOplus2 is the next generation 2/4 Gbps full outdoor solution providing best TCO by boosting capacity and availability of the network and simplifies installation with fully integrated branching and zero indoor footprint. Thanks to its unmatched spectrum efficiency and larger channel selection (single 14 MHz up to 2x112 MHz channels) offers highest capacity and channel flexibility, with no restriction in channel allocations either adjacent and copolar with best in class system gain.



ALFOplus2

## ALFOplus

### High Capacity IP Ethernet Full Outdoor

ALFOplus combines compactness, best in class performances and lowest power consumption in a single efficient and cost effective full outdoor device. It offers up to 1Gbps transport capacity also liaising over higher modulation schemes of 1024 QAM.



ALFOplus

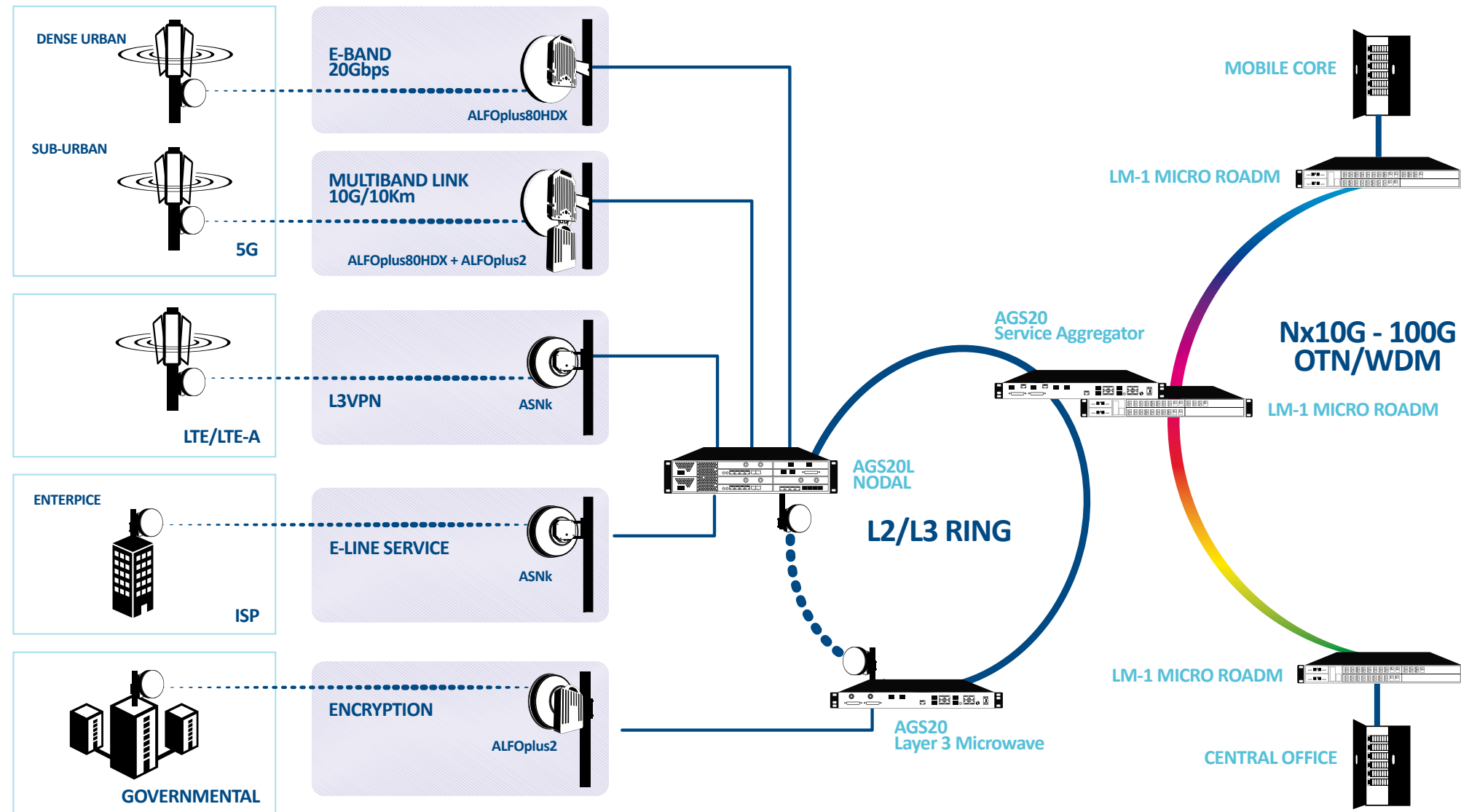
## ALFOplus80HDX

### E-Band Full Outdoor up to 20 Gbps

Whether in mobile, fixed or private networks, the E-band millimetre wave solution represents a fundamental technology tool bridging the gap between fibre high capacity systems and flexible cost effective wireless transmission. ALFOplus80HDX achieves 10 Gbps full-duplex ultra high capacity in a single unit, and 20 Gbps in a 2+0 XPIC configuration.



ALFOplus80HDX



## MANAGEMENT SOFTWARE

### NMS5

#### SNMP based Element and Network Manager

- Virtual or physical installation
- Web client interface
- L2/L3 Service manager
- OSS Northbound interfaces
- High availability

### SM-DC

#### SDN Microwave Domain Controller additional functionalities to NMS5:

- NETCONF Southbound interfaces
- RESTCONF Northbound interface
- YANG model ONF-ETSI-IETF

### SM-Apps

#### Control, Optimize, Automate and Upgrade SDN applications

- Network optimization with performance Analytics
- Real time network awareness with automatic discovery
- Root cause analysis with machine learning
- Preventive maintenance

## TL

### Trunk Link IP & Hybrid

A hybrid (IP & TDM) high capacity microwave radio system designed for trunk and long haul links. With up to 16 RF channels and N+0/N+1 configurations, the TL is capable of providing various solutions for high capacity wireless transport infrastructures. Suitable for multiple applications, from wireless backbone, spur and fiber back-up, and capable of reaching critical locations providing connectivity over water and terrain that other transport media would fail to reach.



TL

## AGS20

AGS20 is a fully integrated single box solution. It offers a complete range of interfaces: Radio, 10/2.5/1 Gigabit/Fast Ethernet, E1 both native and pseudo wire and STM-1. AGS20 can support up to four IF interfaces, allowing the set up a four direction nodal solution in a single rack unit IDU, or Radio LAG over 4x ODUs, with best cost/performance relationship. AGS20 minimizes space consumption without renouncing to functionalities.



AGS20 | integrated single unit

## AGS20M

AGS20M is an expandable split-mount edge node that hosts a frontal expansion slot. Its innovative structure provides both simplicity and flexibility matching the requirement of maintaining a low total cost of ownership (TCO) by giving the possibility to expand the node with more radio or client interfaces to meet the growing demands of the network.



AGS20M | integrated unit with single drawer expansion slot

## AGS20L

AGS20L has a fully modular architectural design, addressing dense scenario applications where multiple directions, high capacity aggregation and convergence over the optical network are a need. AGS20L aggregates traffic incoming from multiple IF based ODU and Ethernet based full outdoors, all feeding into a single node. Its modular design offers full redundancy (no Single Point of Failure) regardless of the radio configuration, improving resiliency of aggregation and backbone sites.



AGS20L | 2RU - 8modular slots

## ASNK

ASNK ODU supports all modulation schemes up to 4096 QAM and radio bandwidth up to 112Mhz granted capacities from 8 Mbit/s to 1000 Mbit/s. Is One of the most compact units with <2L volume and 10W power consumption, benchmarking solution.



ASNK | AGS20 ODU