EBlink
Wireless Fronthaul Technology

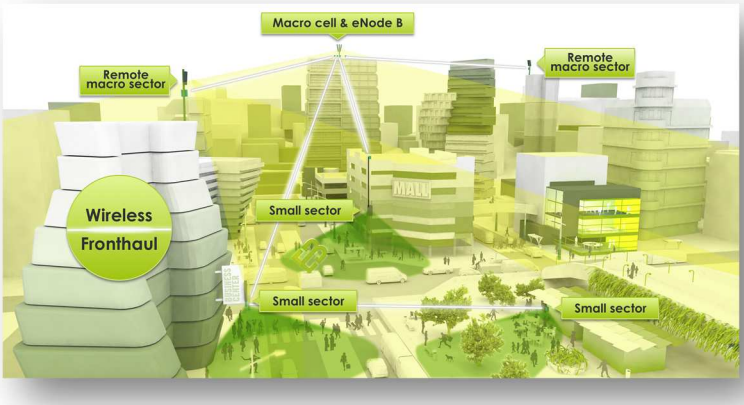
FrontLink™ 58-60

Product Datasheet

Solution Overview

EBlink's compact all-in-one outdoor wireless fronthaul unit provides a wireless connection between the base station processing element (BBU) and the remote radio heads (RRU or RRH). Working in the 5.8GHz frequency band, it offers a practical and economical alternative to the optical fiber generally used to connect the BBU and the RRH.

EBlink's FrontLink™ 58 digitally interfaces to BBU and RRH equipment using the CPRI protocol, enabling interoperability with a wide range of base station and radio providers.

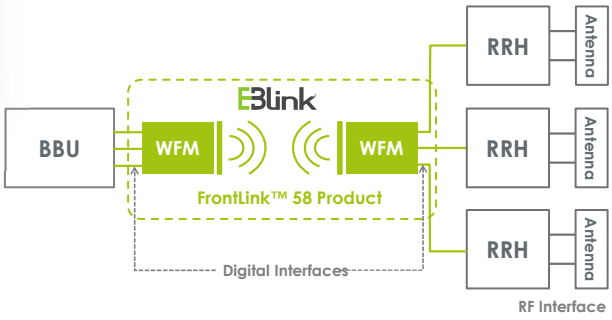


Applications

- Indoor solutions (Campus, Hotels, Parking …)
- Stadiums, Racetracks, etc...
- Temporary sites
- Remote sectors
- Small cells
- Macrosites cellular Towers
- Right-of-way sites
- Centralised RAN

Patented and field proven technology

Preserves downlink and uplink radio performance and achieves radio KPIs similar to those obtained with an optical fiber connection.



Groundbreaking spectral efficiency

Allows up to three independent channels on a single wireless fronthaul link supporting a 3-sector site configuration or a tri-band remote sector, i.e a total of ~7.5Gb/s CPRI signal, carried over less than 70MHz.

Cloud RAN enabler

EBlink's FrontLink™ 58 products offer a convenient, low risk and flexible solution for future distributed RAN architectures such as Cloud RAN or local Cloud RAN.

Benefits & Savings

- Reduces network infrastructure CAPEX/OPEX.
- Provides future-proof solution, suitable to architecture evolution such as C-RAN or local C-RAN.
- Allows for interference cancellation & Mitigation : LTE-Advanced ready
- Smart Design, Perfectly integrated in the environment

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www.e-blink.com

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Wireless Fronthaul Link	
Frequency Band	• 5.725 – 5.875 GHz
Integrated Antenna	• 23 dBi gain • Dual polarization (H & V) • 8.5° beamwidth on both H-plane and V-plane
Link Distance	• 200m (driven by regulation constraints) with integrated antenna • Longer distance (400m) achievable with external antenna - upon request • Automatic Gain Control (AGC)
Link Power	• Low power wireless fronthaul link, compliant with regulation
Functionality	
CPRI Connectivity	• Three CPRI v4.2 optical ports • Line rate of 2.5Gb/s up to 6Gb/s (future) – per port
Link Topology	• Single wireless link with up to three parallel CPRI flows
Radio Access Network (RAN)	• 4G LTE FDD – 5, 10, 15 & 20MHz carriers bandwidth per sector • 3G/3G++ FDD up to 4x5MHz carriers bandwidth per sector • Any RAN frequency : As supported by RRH
RAN Capacity	• Up to 60 MHz (3x20MHz) LTE bandwidth 2X2 MIMO(2T2R) • Up to 60 MHz (3x(4x5)) UMTS/HSPA bandwidth Dual Carrier or 2x2 MIMO
Installation	• Extremely simple to install (2 to 4 hours) with Local & Remote Maintenance Terminal (LRMT)
Alignment	• Easy alignment for longer distance - cf beamwidth • Alignment support tools also available: o LRMT o Voltmeter
Management	• Circular connector for dry contact alarm (2 alarms available) • RJ45 Ethernet connector for Local & Remote Maintenance Terminal • SNMP V3, over IP V4 & IP V6
Power, Physical & Environmental	
Input Voltage	• -48VDC
Power consumption	• 50W typical per module
Dimensions	• 305 x 305 x 155 (HxWxD) mm^3
Weight	• 8 kgs
Operating T°	• -40°C to +55°C
Humidity	• 5 to 95% non-condensing
Installation	• Pole, mast, tower or wall mounted (with available mounting kit) • Suitable for rooftop, tower, utility or light pole
Enclosure	• Metal & outdoor UV-stabilized plastic • IP65
Regulation Compliance	
Radio emissions	• CE marked – EN300-440, ERC/REC 70-03
Safety	• IEC 60950-1
Environmental	• RoHS

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