Fujitsu's BroadOne GX4000 Series

An Ultra-High Capacity Full-Outdoor E-band Solution

Millimeter-wave Radio Transport Platform

shaping tomorrow with you

FUJITSU

Fujitsu Proudly Introduces a Multi-Gigabit Ethernet Wireless Transport in the E-band Frequency

All GX4000 systems operating in the E-band frequency feature Fujitsu's Impulse Radio technology, and thus provide quick and easy solutions for building multi-Gigabit wireless networks.

Due to their simple architecture, GX4000 systems offer, not just high speed transmission, but also low power consumption - so you can establish and maintain a green network.

Exclusive high speed transmission for exceptional performance in wireless networks

Why you should think about E-band

Traditional microwave frequency bands are getting highly congested, and since the bands have been largely used up to enhance mobile backhaul networks, it is becoming difficult in many countries to find available spectrum.

At the same time, as Radio Access Network technology evolves toward LTE/LTE-Advanced, much higher capacity is going to be required in the mobile backhaul and fronthaul networks. Thus, the growing importance of the 70/80 GHz frequency band, called E-band.

E-band is an ideal spectrum to deliver multi-Gigabit capacity transport In future networks, for the following reasons:

- A wide band spectrum is available (71-76 GHz and 81-86 GHz).
- The acceptance of shorter reach of a hop for small cell mobile networks.
- Virtually no interference between links; flexible network engineering.
- Quick process and low cost of frequency licensing (Light License policy).

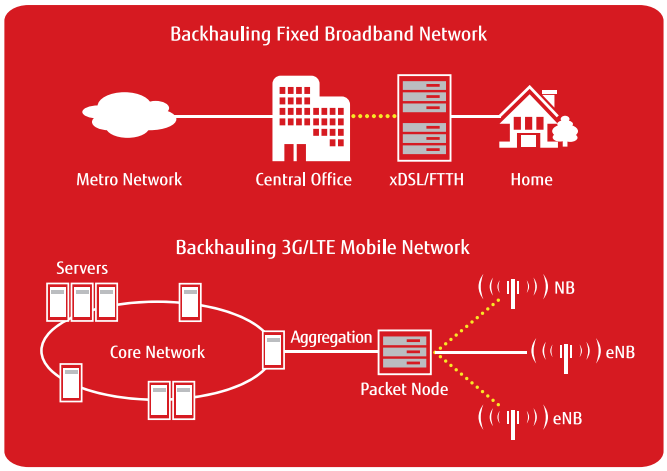
Why you should think about Fujitsu

Fujitsu, which is one of the world's leading microwave radio providers, has developed an innovative, patented "Impulse Radio" technology for millimeter-wave radio transmission. This technology, incorporated in highly compact outdoor radio equipment, makes possible the ultra-high data rate of >3 Gbps for a wireless link.

A Fujitsu GX4000 E-band radio solution will redefine your network for tomorrow

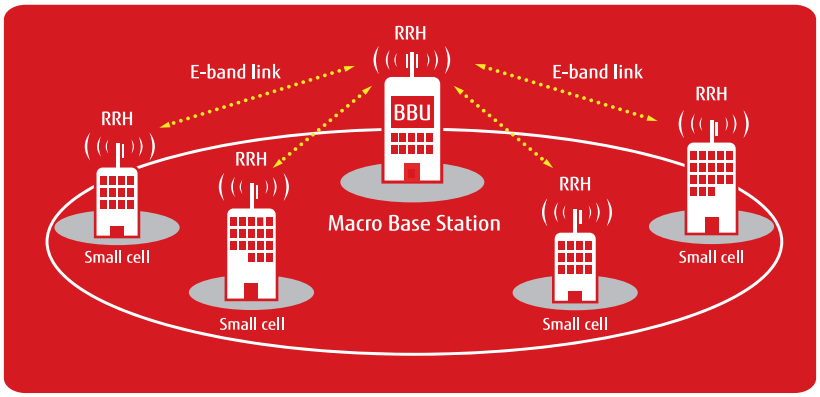
Backhaul in Mobile/Fixed Broadband Networks

To deliver various types of content-rich services over a 3G/4G mobile network or fixed broadband network, the choice of backhaul solution is the key to success. An E-band link is an ideal complement to wired backhaul technology, as it provides enough transmission capacity to support radically increased data traffic demands within a short time-frame.



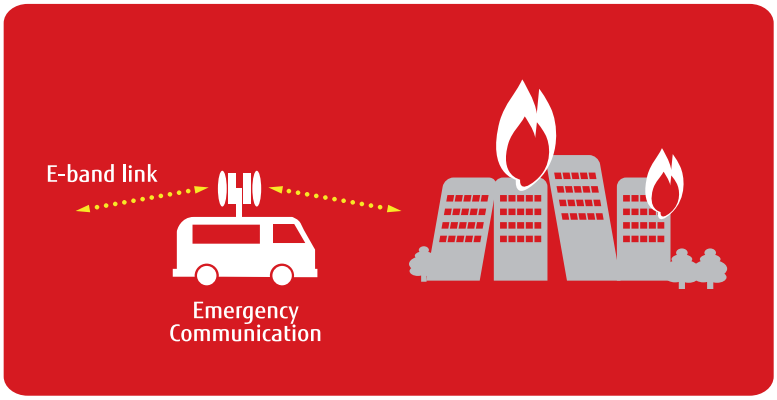
Fronthaul in Future Mobile Networks (CPRI Transport)

In the age of LTE and LTE-Advanced, the architecture of a radio access network will be quite different from that of today. In that age, small cells will be widely deployed on a macrocell layer for overall network operations efficiency. Thus, the most serious challenge for mobile network operators will no longer be the backhaul, but rather the fronthaul i.e. how to secure inter-connections between a centralised-BBU and multiple RRH in the most efficient way. With the arrival of GX4000 technology from Fujitsu, you can meet that challenge - whilst at the same time reducing CAPEX - with a flexible, environmentally-friendly wireless solution.



Portable Networks for Disaster Recovery, HDTV Transport etc.

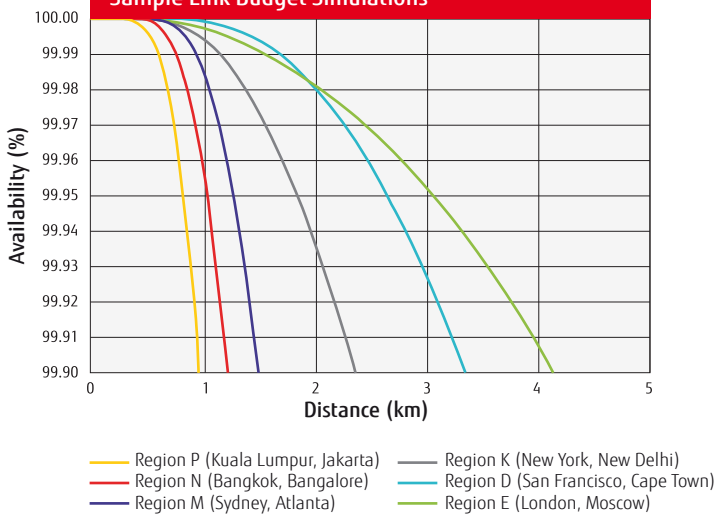
Wireless transport solutions can be extremely important if communications networks are heavily damaged by disasters allowing infrastructures to be restored quickly. With its compact body and user-friendly operation, the GX4000 represents a very flexible and powerful solution for emergency recovery of data traffic. The GX4000 is also an ideal solution for latency-sensitive but capacity-demanding applications like HDTV transport.



Fujitsu's BroadOne GX4000
Full-Outdoor E-band Solution

Technical Specifications			
Frequency:	71-76/81-86 GHz, FDD	Temperature:	-33 °C to +55 °C
Channel Size:	4,500 MHz	Humidity:	0 to 95%
Modulation Scheme:	"Impulse Radio" Method	Power Supply:	DC -48V
Ethernet Throughput:	3.0 Gbps	Power Consumption:	30 Watts
Traffic Interface:	10 GbE (XFP)/CPRI (SFP)	EMC, EMI:	ETSI EN 301 489-1, 4
Latency (one way):	60 Micro Seconds	Dimensions:	25 cm x 25 cm x 6.5 cm (4 Litre)
Antenna Size:	30 cm / 60 cm	Weight:	4.5 kg
Tx Output Power:	+10 dBm (ATPC, MTPC)	Management Port:	100Base-TX (RJ-45)
Interface Options:	Ext Adapter for GE Ports	Management Protocol:	SNMP & HTTP

Sample Link Budget Simulations



with 30 cm Antenna

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