

5G Outdoor FWA CPE (mmWave + LTE) FCP-5200-012A



INTRODUCTION

The HFCL 5G outdoor FWA-CPE is a path breaking home and enterprise solution that offers high speed 5G wireless internet at the last mile. It is primarily based on mmWave frequency (n258) and designed to work simultaneously in both 5G SA & NSA architecture. Having support of 800 MHz Carrier bandwidth and throughput of 4.8 Gbps make it a preferred choice for Operators and end users. It is a plug and play device with slim form factor and supports multiple LTE frequency globally. With lower TCO and expedited time to market, it is a perfect product for CSPs and ISPs which unlocks a plethora of revenue streams.

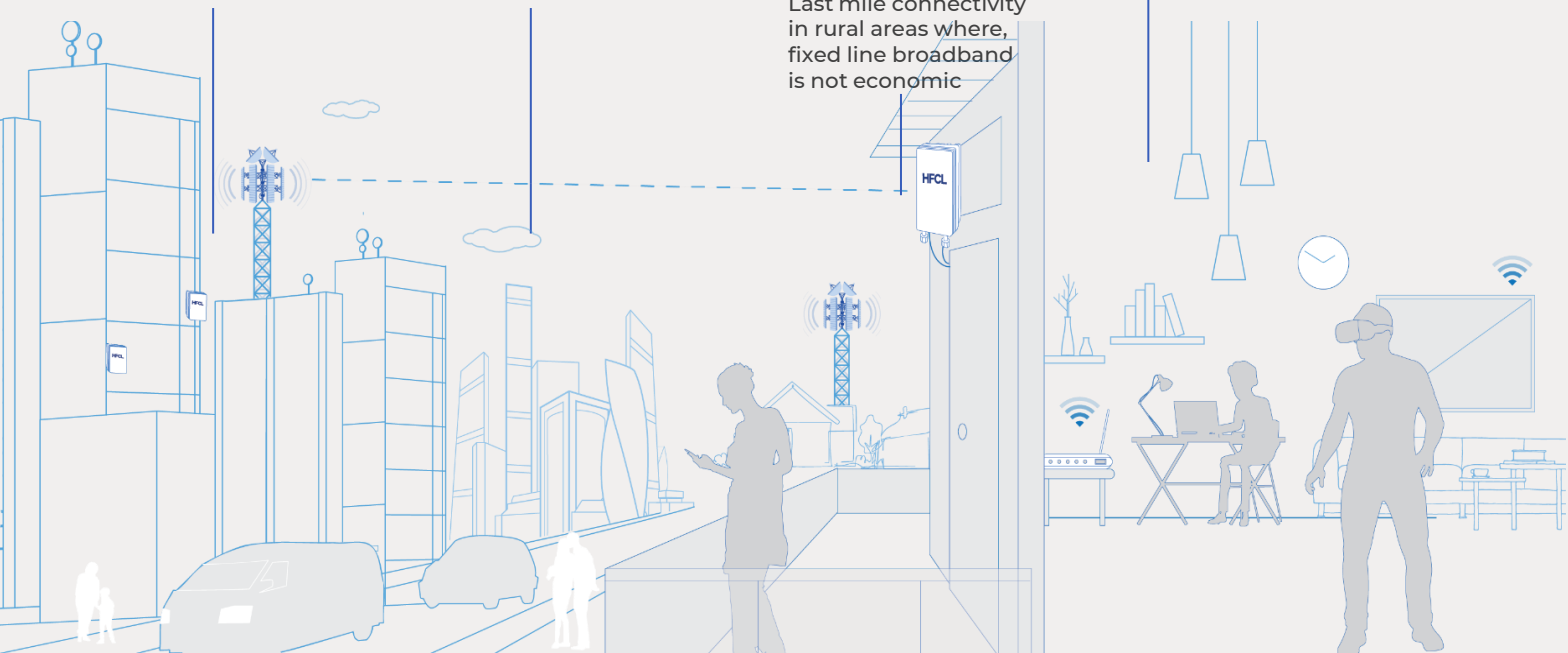
APPLICATIONS

Broadband for Enterprises, SOHO, Campus especially in dense urban areas

Temporary connectivity in emergency-stricken areas and back up substitute for FTTH

Residential broadband in urban and suburban areas as MDU Broadband CPE

Last mile connectivity in rural areas where, fixed line broadband is not economic



Provides fibre like throughput in Gbps



Support for both 5G SA & NSA (ENDC)



Supports CA up to 8 carriers in DL and 4 carriers in UL



Different choices of frequency bands in LTE



Lightweight, compact size with minimum power consumption



Mobile app for self-installation that shows best location with strong signal reception

FUNCTIONAL SPECIFICATIONS

Technology	5G NR - TDD
Mode	NSA & SA
Operating Frequency band - NR FR2	n257, n258, n260, n261
Channel Bandwidth - NR FR2	100 MHz
Sub Carrier Spacing - NR FR2	120 KHz
Operating Frequency Bands - TDD LTE	B40, B41
Channel Bandwidth – TDD LTE	10 MHz, 20 MHz
Operating Frequency Bands - FDD LTE	B1, B3, B5, B8
Channel Bandwidth - FDD LTE	1.4 MHz, 3MHz, 5MHz, 10MHz,15MHz, 20MHz
Carrier Aggregation – NR	Downlink: Up-to 8CC (Max aggregated BW - 800MHz) Uplink: Up-to 4CC (Max aggregated BW - 400MHz)
Carrier Aggregation – LTE	Downlink: Up-to 3 carriers (Max aggregated BW – 60MHz)
Dual Connectivity	ENDC
CPE Power class	CPE Power Class 1 (NR FR 2)
	CPE Power Class 3 (LTE B1, B3, B5, B8, and B40)
	CPE Power Class 2 (LTE B41)
Transmit Power	28 dBm (NR FR2)
	23 dBm (LTE B1, B3, B40, B5, B8)
	26 dBm (LTE B41)
EIRP	43 dBm (NR FR2)
	26 dBm (LTE B1, B3, B40, B5, B8)
	29 dBm (LTE B41)
Modulation	NR DL - QPSK, 16QAM, 64QAM, 256 QAM
	NR UL - Pi/2-BPSK,QPSK,16QAM, 64QAM
	LTE DL - QPSK, 16QAM, 64QAM, 256 QAM
	LTE UL - BPSK,QPSK,16QAM, 64QAM, 256QAM
Max DL Throughput	4.8 Gbps
Max UL Throughput	620 Mbps

ANTENNA SPECIFICATIONS

5G ANTENNA	
Antenna Type	Integrated directional antenna
MIMO	2T2R (32 Antenna Elements)
Antenna Array Gain	15 dBi
Polarization	Cross (orthogonal)
Beamforming	Yes
4G ANTENNA	
Antenna Type	Integrated directional antenna
MIMO	1T4R (B1,B3, B40, and B41) 1T2R (B5 and B8)
Antenna array Gain	3 dBi
Polarization	Linear Polarization

INTERFACES

SIM	1 × 4FF SIM (SIM slot 1)
	1x 2FF/3FF SIM (SIM slot 2)* eSIM
LAN Port	1 x 10/100/1G/10G Base-T Ethernet RJ45 (PoE++)
USB Port	1 × USB C
Status Display	LED Indicators
Button and Switch	Reset hole

MECHANICAL SPECIFICATIONS

Weight	< 1.5 kg
Volume	< 2.24 L
Dimensions (LxWxD)	268x186x45 mm ³
Ingress Protection	IP67
Mounting options	Pole and Wall

ELECTRICAL SPECIFICATIONS

Power Input	PoE++
Power Consumption	30 Watt

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature	-40°C to + 65°C
Storage Temperature	-40°C to + 85°C
Operating Humidity	5%-95%
Storage Humidity (Packed)	0% to 100%
Cooling	Passive cooled/ Convection cooling

* At a particular instant of time, only one SIM slot can be utilized.

DATA NETWORKING AND OTHER FEATURES

NAT, PAT
DMZ
ICMP
IP Filter
UPnP
VPN Pass-through Support (PPTP, L2TP & IPsec)
IPv4 / IPv6 / IPv4v6, SLAAC, cLAT
IPv6-464XLAT
Filters/Firewall
mDNS
DHCP Server/Client
VoIP
Auto/Manual Network Search
Traffic Statistics
SMS (Via WebUI)
Enterprise features (EoGRE, IPSec)
Network Slicing, DNN, URSP

STANDARDS AND COMPLIANCES

3GPP compliance	3GPP Release 15, 16
Regulatory Compliance	IEC (Safety IS 13252), RoHS, ETSI, CFR, UL, FCC/GCF/PTCRB, CE/ISED/MIC/RCM-ACMA, WEEE, REACH

DEVICE MANAGEMENT

WebUI
TR069
Online and local software upgrade
Syslog monitoring
SSH
CLI, Telnet, HTTP and HTTPS
FTP and HTTP OTA Firmware Upgrade
Device Factory Default Setting

SECURITY

Secure boot, Secure file system, and Secure execution environment
Built-in firewall with adjustable settings and rules
Defence of DoS/ARP attacks/Port scan
Port filtering, port forwarding, MAC filtering
Security hardened web interface
Password hash
Session timeout
Incorrect password lockout
IP pass-through

INCLUDED ACCESSORIES

1 x Gigabit PoE++ injector
1 x Network cable (CAT 6/6A)
1 x Mounting kit