

GENERAL 10.5 GHz SYSTEM

Standard Coverage (UK)	10 km radius with 25 km option
Frequency Band	Factory set 28MHz band within 10.150 – 10.300GHz for Downstream, Upstream 350MHz above
D/S to U/S Band Separation	350 MHz
EMC and radio compliance	EN 301 489-1, EN 301 489-4 & EN 301 021
Antenna compliance Base Stn	EN 302 085 CS Class 1, CPE EN 302 085 TS4 Range 3

BASE STATION (HUB) TRANSCIVER

Output freq to Router	14.5 to 42.5 MHz (typical)
Input freq from Router	465.5 to 493.5 MHz (typical)
Frequency error	< 2 kHz
Phase noise	< -80 dBc/Hz at 10 kHz
Receiver Noise Figure	< 4.0 dB
Receiver Gain	40 dB nominal +/-3 dB
Receiver Gain flatness	< 4 dB total, <3 dB over 6 MHz
In band spurious	Below noise in 100 kHz band
Receiver 1 dB compression	-5 dBm at output
Transmitter Input power range	23 to 38 dBmV
TX Output 1 dB comp	> 35dBm
Transmit power	26dBm nominal
Power variation	<1.5 dB over temperature
Antenna Beamwidth	90 deg in azimuth, cosecant ² in elevation
Nominal Gain	19 dBi
Polarisation	Vertical upstream, Horizontal downstream (or vice versa)
Power Voltage	-48 V +/-5%
Current drain	< 1.35A (for -48V) after 5 minutes
Operating Temp	-20 to +55 degree C
Connectors	2 75 Ohm N Type Female + 1 Multipole for power and BIT
Built in Test	Single Contact closure pair for oscillators & output powers
Weight	20 kg approx
Size	60 x 32 x 30 cm nominal
Environmental rating	IP66

CPE WIRELESS UNIT

General Output freq to modem	469 to 497MHz (optionally same as supplied to Hub)
Input freq from modem	14.5 to 42.5 MHz
Frequency error	< 20 kHz (when locked to Hub beacon)
Phase noise	< -77 dBc/Hz at 10 kHz
Out of Band Spurious	< -40 dBm on RF ports
Beacon detection range	< -100 dBm to > -45 dBm
Receiver Noise Figure	< 4 dB (3.0 dB typical)
Gain	28 dB nominal +/-6 dB
Gain flatness	< 4 dB total, <2 dB over 6 MHz
In band spurious	Below noise in 100 kHz band
Receiver 1 dB compression	-20 dBm at output
Transmit Gain	20 dB nominal +/-6 dB
Transmit Gain flatness	< 5 dB total, <2 dB over 3 MHz
TX 1 dB compression	>17dBm
Antenna Gain	20dBi for both TX and RX
Polarisation	Vertical upstream, Horizontal downstream (or vice versa)
Power Voltage	12V +/-5%
Current drain	470mA nominal, 520mA max
Operating Temp	-20 to +55 degree C
Connector	Single 75 ohm F-type Female
Weight	approx 1.6 kg
Size	18 x 17 x 3.5 cm (no sunshield)
Environmental rating	IP65 (without drain-hole)