## **DFES – DBA Fire Alarm Monitoring ASE III Wireless Comms Installation**

## 0 - 15 m from the FIP and ASE

# Low Profile Antenna (LPA) 3dBi CodeRed ASE RFI 9006 CellFoil or CWD195 - RG58 50 OHM Low Loss Coaxial Cable max length 15 m

The LPA is normally installed on top of the square J-Box or square strobe housing, recommended J-Box shall be IP55 or above, 90x90x50 mm. The J-Box shall be mounted within 2.7 to 3 m above floor level, and have 450 mm minimum clearance above it to allow the LPA installation. The J-Box can be installed on external wall close to the Fire Panel and doesn't need to be at DBEP near the strobe (VAD).

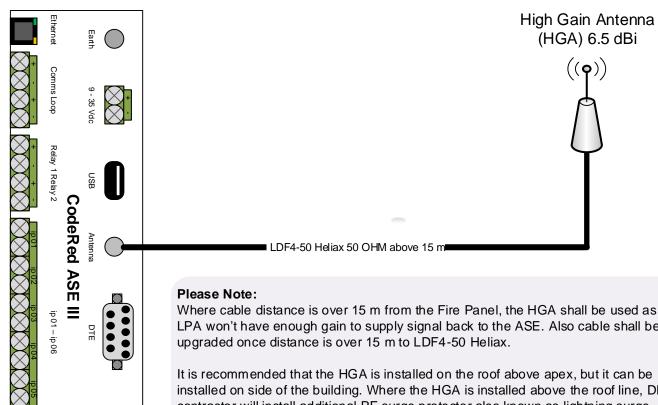
When location is chosen the minimum Channel Signal Quality (CSQ) also known as Signal Quality Measure must be 14, which also can be shown as Received Signal Strength Indicator (RSSI) value. i.e. RSSI:-85dBm(14)

The maximum cable length with the LPA is 15 m, this length is already including tolerance as manufacturer's recommendation is 10 m. Do not exceed 15 m as LPA won't have enough gain to supply same CSQ or RSSI signal back to the ASE due to

The Fire Agent is responsible to provide and install appropriate cable (RFI 9006 CellFoil or CWD195) from the Fire Panel. The LDF4-50 Heliax should not be used with the LPA as there is no performance improvements due to loss with additional joints and patch leads. DFES contractor will organise cable termination and connection.

This installation is considered standard "DBA Alarm Connection and Equipment Installation" with no additional cost.

## 15 m and above from the FIP and ASE



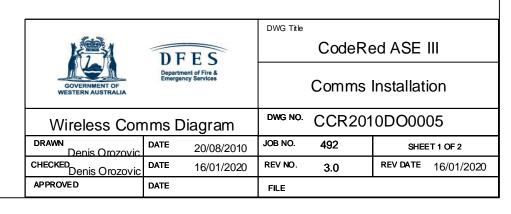
Where cable distance is over 15 m from the Fire Panel, the HGA shall be used as the LPA won't have enough gain to supply signal back to the ASE. Also cable shall be

It is recommended that the HGA is installed on the roof above apex, but it can be installed on side of the building. Where the HGA is installed above the roof line, DFES contractor will install additional RF surge protector also known as lightning surge arrestor or suppressor.

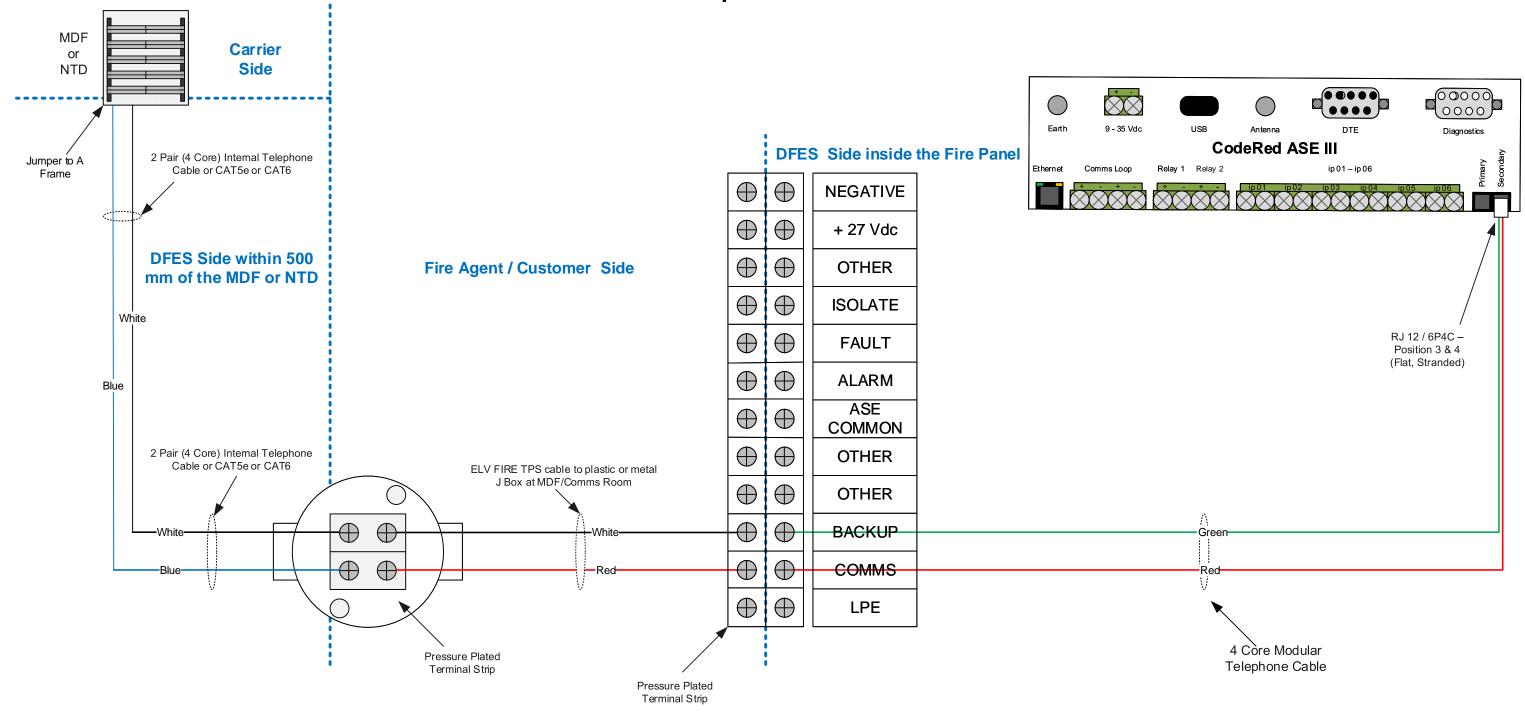
The HGA its installed with mounting bracket to suite type of the roof, in some cases whole assembly can be over 3 m high, this should be considered when location is chosen.

The Fire Agent is responsible to provide and install appropriate cable based on the distance from the Fire Panel, DFES contractor will organise cable termination and connection.

Where the HGA is installed on the roof, access shall be considered, also this type of installation is not considered standard and additional cost will apply and quote will be prepared for required party by DFES contractor.



## DFES – DBA Fire Alarm Monitoring ASE III Backup Comms Installation



### Please Note:

The J-Box shall be mounted within 500 mm of the MDF/NTD to allow for DBA connection. Additionally, there must be at least 200 mm of tail left in the J-Box for use by the DFES contractor. Also the external insulation must be stripped back, levelled with gland.

In addition, cable shall not enter J-Box except through the manufacture specified entry points. eg: Not through the rear casing or the lid of the J-Box. The J-Box must use opposite entry points, not 90 degree, each entry point shall be 20mm threaded.

The J-Box can be either metal or plastic and pressure plated terminal strip shall be provided by Fire Agent.

<b>1</b> 1	DFES  Department of Fire & Emergency Services		CodeRed ASE III			
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