

Cell Extender - Required Radio Equipment

General

Each installed Cell Extender 'channel' requires a Donor radio (for the RF link back to the Donor site) and a Cell radio (to provide the local coverage).

Both Donor and Cell Radios must be able to operate in full duplex mode (i.e. be capable of simultaneous Tx and Rx operation).

Cell Site Radios

Cell Radio transmitters operate on a semi continuous duty cycle basis (Traffic channels), or on a full continuous cycle basis (Control channel). Hence the Cell radios are often of the 'full' Base station type, for optimum RF performance and reliability.

Basically, any standard type of Conventional Base station is suitable for Cell site radio operation, provided receivers are fitted with an RSSI output connection.

Currently the following types are approved for Cell Site operation:

- TAIT TB7100 Series of Base Stations (all versions)
- TAIT T800 Range of Base Stations (all versions)
- Tait TM8100 Series of VHF/UHF mobiles (2 radios per Cell site channel, 1 for Transmit, 1 for Receive, low Tx power only)
- TAIT T700 Full Duplex range of Mobile radios
- RFT "Eclipse" Range of Base Stations
- SPECTRA MX800 Series of Base Stations
- SPECTRA MX900 Series of Base Stations
- Simoco PRF10 Range of Base Stations
- Kenwood TKR 750/850 Series of Base Stations
- Vertex range of Base Stations
- Motorola Professional GM300 Series (GM340, Databox, etc), (2 radios per Cell site channel, 1 for Transmit, 1 for Receive, low Tx power only)



If your preferred radio is not listed here, [please advise us](#), so we can organise a Cell Extender Approval test for it.

Donor (RF Link) Radios

Donor radios usually operate at low power levels only (as low as 1 Watt or less) and as well, operate on a duty cycle basis. Hence it is quite practical to use simple low cost Conventional mobiles for the Donor radio links. As most standard mobiles are not capable of Duplex operation, we normally use two mobiles, one operating as the transmitter, the second one operating as the receiver.

It is essential that Donor radios have the ability to operate under external frequency control, normally of the parallel (binary or BCD) format.

Currently the following types of radio have been proven suitable for Donor operation:

- Tait TM8100 Series of VHF/UHF mobiles (2 radios per Cell site channel, 1 for Transmit, 1 for Receive)
- Tait T2015 Series of mobiles (2 radios per Cell site channel, 1 for Transmit, 1 for Receive)
- TAIT T700 Full Duplex radios
- TAIT T800 Base Stations
- RFT "Eclipse" Base Stations
- SPECTRA MX800 Series
- SPECTRA MX900 Series
- Simoco PRF10 Series
- Kenwood TKR 750/850 series
- Motorola Professional GM300 Series (GM340, Databox, etc), (2 radios per Cell site channel, 1 for Transmit, 1 for Receive)

If your preferred radio is not listed here, [please advise us](#), so we can organise a Cell Extender Approval test for it.

Wherever there is a choice, we strongly recommend the new Tait TM8100 series for Donor radio operation (and, if low Transmit power only is required, for Cell site operation as well).

Any Questions? Please [contact us](#) anytime for any further information.