DXD-16

'PTP Mode' Explained

Menu 1.1 offers 'PTP Mode' as one of the reference sources for the DXD-16. This documents examines what it means to select PTP Mode.

• Why is it called 'PTP MODE'?

When selecting a reference such as Video Sync for example, the DXD-16 typically locks to that master reference. But with PTP, it is different because the BMCA (Best Master Clock Algorithm) determines which device is the master. When selecting 'PTP Mode,' the DXD-16 will lock to an external master, but only if a better clock is found on the network. Otherwise, it will become the Grandmaster itself. That is why it is called 'PTP Mode' instead of simply 'PTP'.

• PTP Slave (Follower)

To make the DXD-16 a PTP Slave, select 'PTP Mode' as the reference (menu 1.1) and set the value of Priority 1 high enough to 'loose' the BMCA and follow the external Grandmaster.

• PTP Master-Only

When selecting any reference other than 'PTP Mode' in menu 1.1, the DXD-16 ports automatically become Master-only. That means that, if the BMCA selects another device on the network as Grandmaster, the DXD-16 port connected to that network will become PASSIVE.

To guarantee that the DXD-16 becomes the Grandmaster, set Priority 1 lower than any other device on the network.
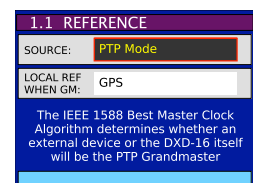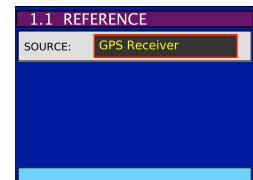
• PTP Master with a GPS reference (GPS option required)

Menu 1.1 REFERENCE offers 2 different ways of selecting GPS:

1. Select GPS Receiver as the SOURCE
2. Select PTP Mode as the SOURCE + GPS as the 'LOCAL REF WHEN GM'.

Both will give the DXD-16 a higher standing in the BMCA for Grandmaster selection. However, if another device on the network is selected as the Grandmaster:

◆ with GPS Receiver as the SOURCE, the DXD-16 port becomes PASSIVE and looses network sync;

◆ with PTP Mode as the SOURCE, the DXD-16 becomes PTP SLAVE and maintains network sync.

• Conclusions

- PTP Mode is required for the DXD-16 to be a **PTP SLAVE** and follow an external Grandmaster.

- PTP Mode is required for the DXD-16 to be a **PTP BOUNDARY CLOCK.**

- For the DXD-16 to be the **PTP GRANDMASTER** (without being referenced to an external BNC source), PTP Mode should be used as it will maintain sync with the network, even if it looses Grandmaster status. Be sure that Priority 1 is set lower than any other device on the network in order to win the BMCA.