



# Technical Notes

## Q-SYS Core 110f



### Interfacing POTS with a Conference Room via Core 110f

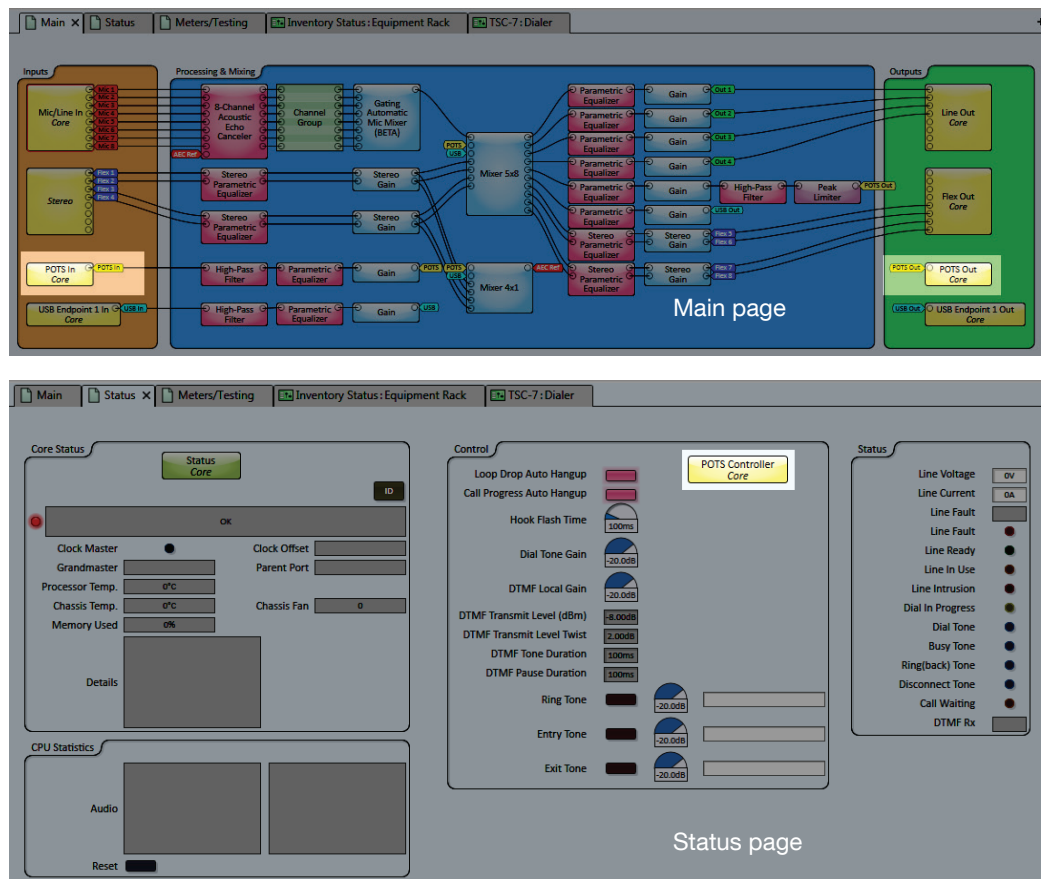
#### Overview

The Q-SYS Core 110f has a built-in POTS interface for connection to an analog phone system, either a Public Switched Telephone Network (PSTN) or a Private Branch Exchange (PBX). This tech note describes how to make and set up this connection.

#### Configuration

Use Q-SYS Designer 5.0 or higher to build your design. Open the Core in the Inventory and drag the **POTS In**, **POTS Out**, and **POTS Controller** components into the Schematic (Figure 1). They need not be on the same page.

Build the rest of your design. Under **Core Properties**, select the appropriate **Telephone Country** (Figure 2) from the list. Note that some PBX systems use country settings that differ from those of the countries where they are used. Consult the PBX system manufacturer for specific details.



**Figure 1.** Place the POTS In, POTS Out, and POTS Controller in your schematic.

It is often advisable to include a high-pass filter and peak limiter in the signal path before the POTS Out.

In the POTS Controller block, you might need to adjust parameters on the controls that are adjusted by a knob: Hook Flash Time, Dial Tone Gain, DTMF Local Gain, Ring Tone, Entry Tone, and Exit Tone.

Below is a table of definitions for these parameters.

Control	Function	Default/Range
Hook Flash Time (ms)	Determines the length of time the system is off hook when the hook flash is initiated.	Default = 100 Range = 50 to 500
Dial Tone Gain (dB)	Controls the audio level of the dial tone when the phone is off hook.	Default = -20 Range = -100 to 0
DTMF Local Gain (dB)	Controls the audio level of the DTMF tones.	Default = -20 Range = -100 to 0
Ring Tone (Gain in dB)	Sets the level of the incoming call ring tone.	Default -20 Range = -100 to 0
Entry Tone (Gain in dB)	Sets the level of the incoming call entry tone.	Range = -100 to 0
Exit Tone (Gain in dB)	Sets the level of the incoming call exit tone.	Range = -100 to 0

Finally, select **File > Save to the Core & Run** or press **F5**.

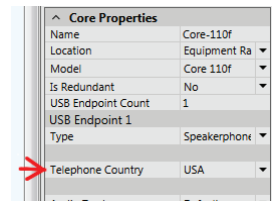
## Connecting

A modular phone cable is included with the Core 110f. Use it or another suitable phone cable to connect the Core to the phone jack.

On the Core, plug the cable into the jack labeled TELEPHONE LINE (Figure 3).



**Figure 3.** The POTS connection on the rear panel of the Core 110f.



**Figure 2.** Select the appropriate country under **Core Properties**.