
PXIe-5663/ 5663E Features

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Connecting the PXIe-5663 to the PXIe-5673 to use an External Clock

Complete the following steps to use an external clock with the PXIe-5663 and the PXIe-5673.

1. Install an PXIe-5601 RF signal downconverter module in any PXI Express or hybrid slot.
2. Install an PXIe-5622 IF digitizer module immediately to the right of the PXIe-5601.
3. Install an PXI-5652 LO source immediately to the left of the PXIe-5601 installed in step 1.
4. Install the PXI-5652 LO source that shipped with your PXIe-5673 immediately to the left of the PXI-5652 LO source installed in step 3.
5. Install the PXIe-5611 I/Q vector modulator that shipped with your PXIe-5673 immediately to the left of the PXI-5652 installed in step 4.
6. Install the PXIe-5450 I/Q signal generator that shipped with your PXIe-5673 immediately to the left of the PXIe-5611 installed in step 5.
7. Using a semi-rigid SMA-to-SMA cable (label A), connect the CH 0+/I+ connector on the PXIe-5450 installed in step 6 to the I+ connector on the PXIe-5611 installed in step 5.
8. Using a semi-rigid SMA-to-SMA cable (label A), connect the CH 0-/I- connector on the PXIe-5450 installed in step 6 to the I- connector on the PXIe-5611 installed in step 5.
9. Using a semi-rigid SMA-to-SMA cable (label A), connect the CH 1+/Q+ connector on the PXIe-5450 installed in step 6 to the Q+ connector on the PXIe-5611 installed in step 5.
10. Using a semi-rigid SMA-to-SMA cable (label A), connect the CH 1-/Q- connector on the PXIe-5450 installed in step 6 to the Q- connector on the PXIe-5611 installed in step 5.
11. Using a semi-rigid SMA-to-SMA coaxial cable (label B), connect the LO IN connector on the PXIe-5611 (installed in step 5) to the RF OUT connector on the PXI-5652 installed in step 4.
12. Using a semi-rigid SMA-to-SMA cable (label C), connect the RF OUT connector on the PXI-5652 LO source installed in step 3 to the LO IN connector on the PXIe-5601

RF signal downconverter installed in step 1.

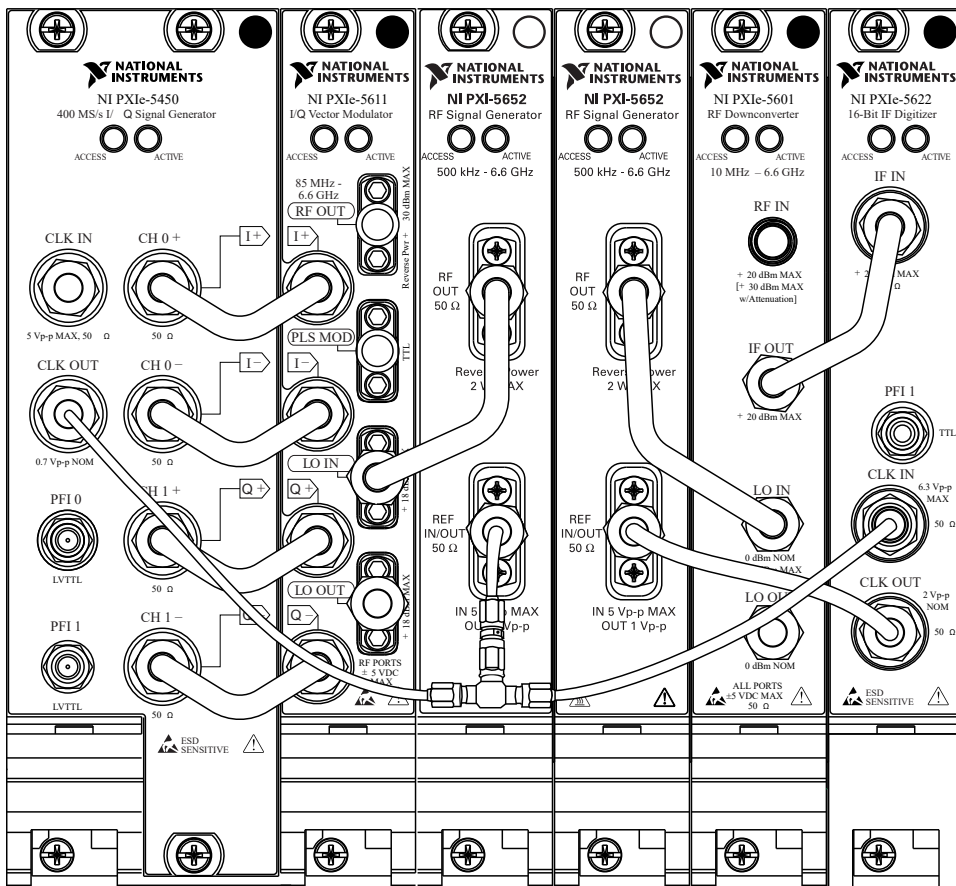
13. Using a semi-rigid SMA-to-SMA cable (label D), connect the IF OUT connector on the PXIe-5601 to the IF IN connector on the PXIe-5622 IF digitizer installed in step 2.
14. Using a flexible coaxial cable, connect the external clock of your choice to the CLK IN connector on the PXIe-5450 installed in step 6.
15. Using a flexible coaxial cable, connect the CLK OUT connector on the PXIe-5450 front panel to an open connector on a two-way SMA-to-SMA splitter.



Note The splitter is not shipped with either the PXIe-5663 or the PXIe-5673. Purchase an SMA F-F-F "T" splitter to make this connection.

16. Using a flexible coaxial cable, connect the REF IN/OUT connector on the PXI-5652 installed in step 4 to an connector on the splitter mentioned in step 15.
17. Using a flexible coaxial cable, connect the CLK IN connector on the PXIe-5622 to the remaining open connector on the splitter.
18. Connect a 50 Ω termination to the LO OUT connector on the PXIe-5611 and the LO OUT connector on the PXIe-5601

The following figure shows a properly interconnected PXIe-5663 and PXIe-5673 using the external clock.



Configuring an External Reference Clock

After interconnecting the PXIe-5663 and PXIe-5673 modules, complete the following steps to allow both devices to share an external Reference Clock source.

1. When programming the PXIe-5673/5673E, set the output terminal parameter of the niRFSG Export Signal VI to CLK OUT or set the outputTerminal parameter of the niRFSG_ExportSignal function to NIRFSG_VAL_CLK_OUT_STR.
2. When programming the PXIe-5663E, set the clock source parameter of the niRFSA Configure Ref Clock VI to RefIn or set the clockSource parameter of the niRFSA_ConfigureRefClock function to NIRFSA_VAL_REF_IN_STR.