

Q AMP INNER:

1. Test connections and set up:
 - Measure QI at QI MON on the front panel and at Q INNER OUTPUT on the Breakout Box using an oscilloscope.
 - Setup a pulse generator for an output of a 120kHz square wave with a 1 microsecond flattop with an amplitude of 10mV(pk). Use an HP 8012B with an attenuator connected to the output with a setting of 31dB. Connect the output to the QI input on the Breakout Box.
 - Use the output of the frequency generator to trigger the oscilloscope.

2. **Power up settings:**

Q POL 0(noninverting)

3. **Test preparation settings:**

Q POL 0(noninverting)

Set Q POL noninverting: *Qpol*

4. **Q INNER AMP test:**
Input settings in Step 3 before starting test.

Q POL 0(noninverting)

Draw a picture of the relationship of the input signal and the output signal.

While observing the QI output vary the width of the flattop of the input signal.

Does the flattop of the output signal vary with the input?

Vary the amplitude of the input signal.

Does the amplitude of the output signal change? _____

5. **Polarity test:**
Input settings in Step 2 before starting test.

Q POL 1(inverting)
Q POL 0(noninverting)

Set Q POL inverting: *Qpol(1)*

Set Q POL noninverting: *Qpol*

Does the polarity of the output change with the settings?

Q AMP OUTER:

1. Test connections and set up:
 - Measure QO at QO MONITOR on the front panel and at Q OUTER OUTPUT on the Breakout Box using an oscilloscope.
 - Setup a pulse generator for an output of a 120kHz square wave with a 1 microsecond flattop with an amplitude of 20mV(pk). Connect the generator to the QO input on the Breakout Box.
 - Use the output of the frequency generator to trigger the oscilloscope.
 - The output will be an integrated squarewave with fast rise and fall times..

2. **Power up settings:**

Q POL	0(noninverting)
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3. **Test preparation settings:**

Q POL	0(noninverting)
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Set Q POL noninverting: *Qpol*

4. **Q OUTER AMP test:**
Input settings in Step 3 before starting test.

Q POL	0(noninverting)
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Draw a picture of the relationship of the input signal and the output signal.

While observing the QI output vary the width of the flattop of the input signal.

Does the flattop of the output signal vary with the input?

Vary the amplitude of the input signal.

Does the amplitude of the output signal change? _____

6. **Polarity test:**
Input settings in Step 2 before starting test.

Q POL	1(inverting)
Q POL	0(noninverting)

Set Q POL inverting: *Qpol(1)*

Set Q POL noninverting: *Qpol*

4. **Does the polarity of the output change with the settings?**
