

## Phase stability over flexure for LLEF Cables

Phase stability over flexure can be significantly affected by the cable assembly technique, cable bend radius, and the length of the cable assembly. Harbour's Low Loss coax cables are typically tested for phase stability over flexure using an Agilent E8362B Network Analyzer using the following procedure:

- a. Perform dynamic testing on a given length of cable (see Figure 1)
- b. Record phase in the network analyzer
- c. Flex cable over various size mandrels depending on the cable diameter
- d. Retest cable for phase change when the cable is coiled around the mandrel
- e. Record change in the network analyzer
- f. Display phase change on the analyzer as degrees of change over frequency.

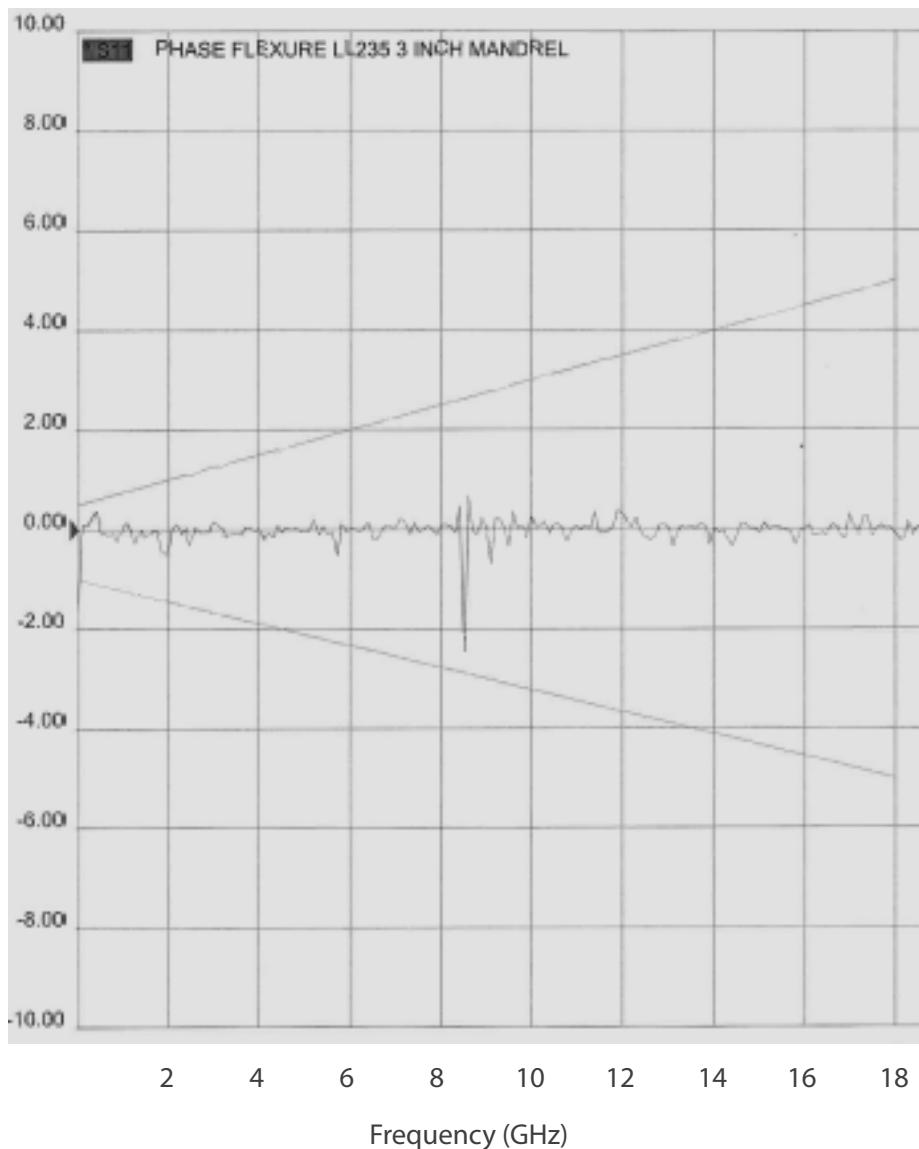
Performance - less than:

+/- 2.0° up to 4 GHz

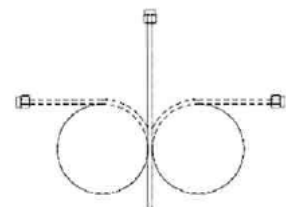
+/- 4° from 4.01 to 8 GHz

+/- 6° from 8.01 to 18 GHz

Phase Change (degrees)



Dynamic Bend Test (Figure 1)



This data is representative of anticipated results. As phase stability over flexure is application dependent, please contact the factory regarding your specific cable and application.