

- ◆ DPSK Phase Transitions
  - ◆ IFF-45TS, IFR 6000 and 424(V)5 have AM modulation by design
    - ◆ Allows for easier pulse timing measurements during certified calibrations and design verification
    - ◆ Instruments implement digital IQ modulation technique and can support constant amplitude during phase transition
  - ◆ ATC-1400A/1403DL, SDX-2000, ATC-601, IFF-701 and IFF-701Ti utilize switching modulators and will not be able to be modified
  - ◆ How will MOPS test be implemented?
    - ◆ No AM on all tests?
    - ◆ Specific test only?

- ◆ DPSK Phase Transitions
  - ◆ How much AM or pulse top ripple allowed?
    - ◆ Proposed specification?
    - ◆ Current spec for DPSK transitions is 10 deg to 170 deg in <80ns
  - ◆ Do we need to test for sensitivity to AM modulation?
- ◆ For proposed DO-181E changes:
  - ◆ What is the implementation timeframe?
- ◆ Can transponder class be included as part of diagnostic register?
  - ◆ Would facilitate installation checks
- ◆ Antenna Coupler to support altitude checks:

# UC-584 Antenna Coupler

AEROFLEX

- ◆ L-Band Transponder Antenna Coupler
- ◆ Allows reliable ERP and MTL testing in high multi-path environments
- ◆ Provides isolation from airborne TCAS systems and SSR ground stations
- ◆ Can be used with:
  - ◆ IFR 6000/6015
  - ◆ APM-424
  - ◆ IFF-45TS
- ◆ Fits most 'Shark Fin' L-Band antenna's

