# Falcon and Raptor Series
# Application Note: DUT Probing Options



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# Contents

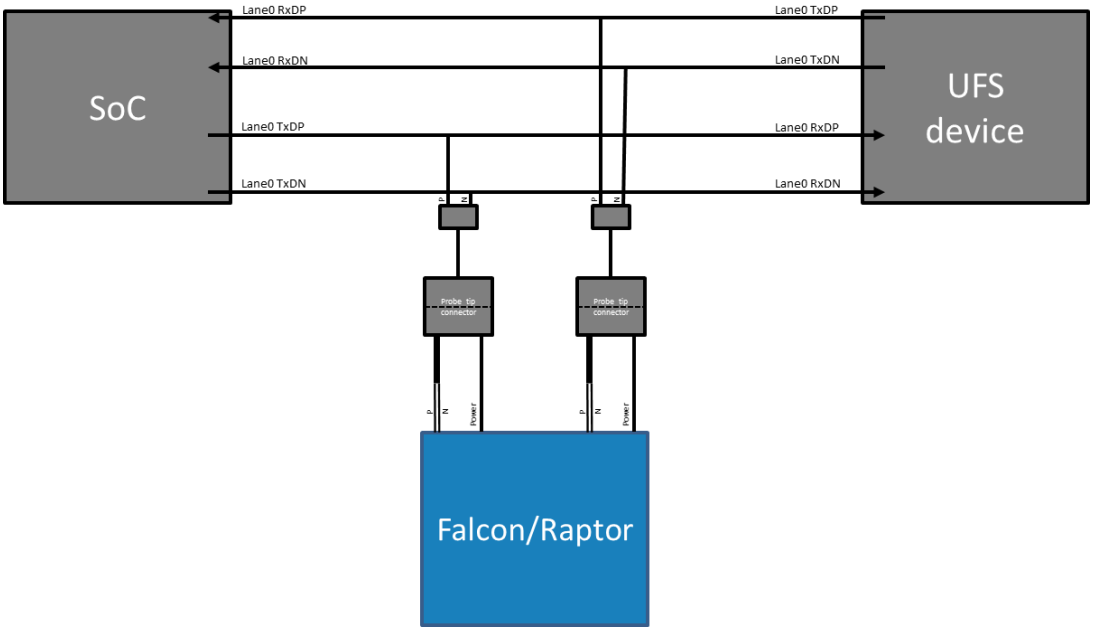
# Probing Configuration Options

Depending on the application, analyzer or exerciser/analyzer, there are several different recommended probing options for connecting to the DUT shown below.

## Analyzer

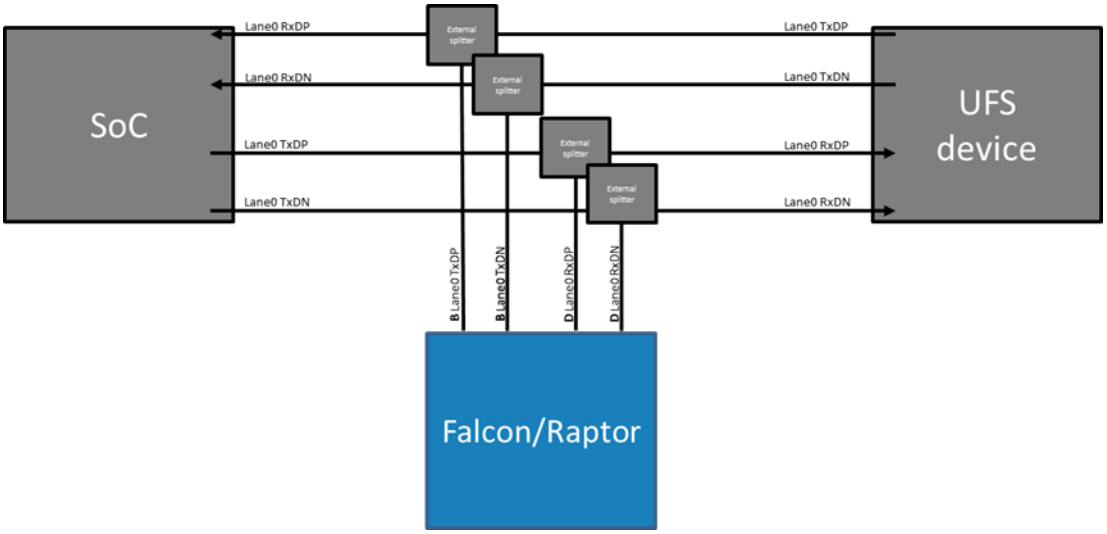
### Solder-down

x1 link shown

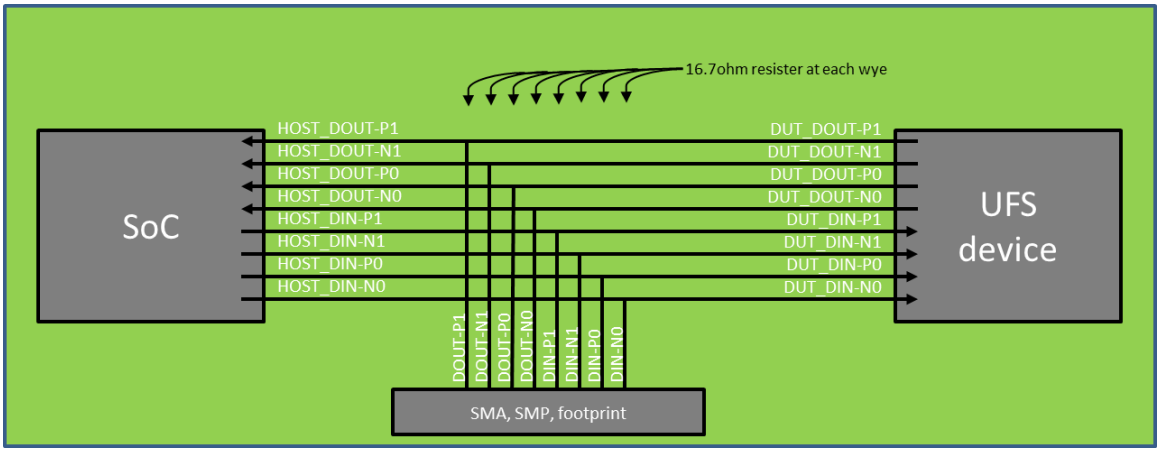



### Splitters

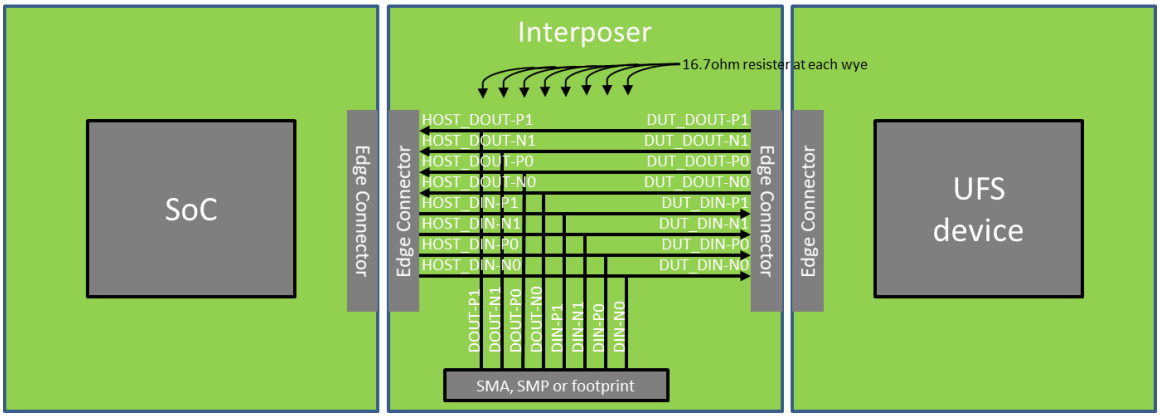
Off-the-shelf power splitters such as the Mini-Circuits DC-18 GHz ZFRSC-183-S+ can be used with standard SMA to SMA cables of ≥18GHz and maximum of 12 inches in length. Each lane requires four power splitters and 12 SMA cables as shown in this x1 link example:



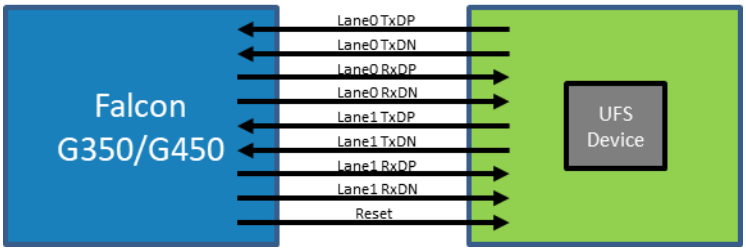

## Breakout DUT (50% split = 16.7 ohms resistor)




## Interposer (50% split = 16.7 ohms resistor)



## Exerciser (direct connection)



# Other connection options

## High density connectors

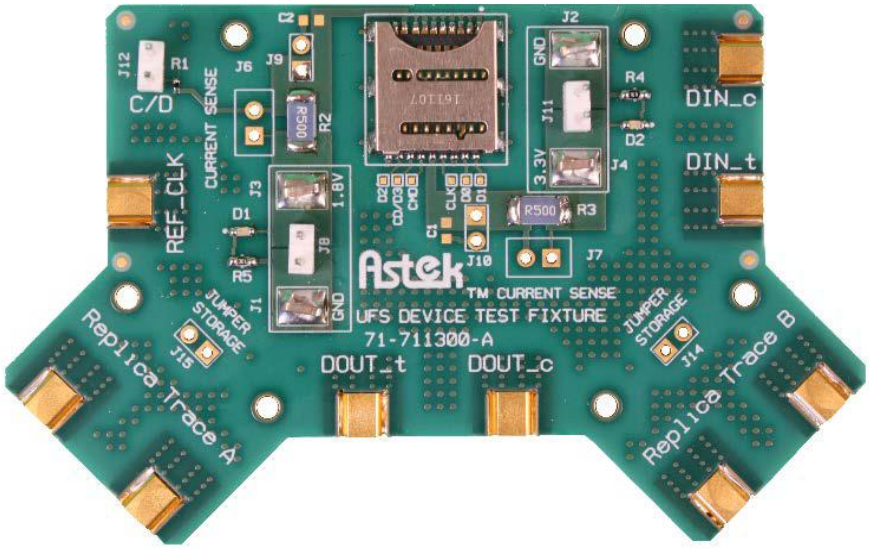
### Ardent 4 and 16 channel 50-ohm footprint connectors

- Ardent Concepts SMA cable TR4X1-2.54-XXXX-2-REVA
- Ardent Concepts SMA cable TR16X2-2.54-XXXX-1-REV-A

## UFS Card test fixture

### Astek UFS Device Test Fixture A9-UFS-02

The A9-UFS-02 Test Fixtures enable designers to verify compliance of UFS Card devices to the JEDEC UFS Test Specification.




## Coax connectors

### Ardent QUICKLINK connector

QUICKLINK is a single channel connector-less compression mount coaxial connector technology delivering DC to 70 GHz+.

### SMA connectors

≥18GHz recommended for HS-G3B
Tbd recommended for HS-G4B

# Probe Connection

## Analyzer Configuration

Note: the labels on the analyzer front panel are from the instrument perspective.

1. Connect the Sublink 0 Rx_1N to TxDN from the device M-Tx lane 1.
2. Connect the Sublink 0 Rx_1P to TxDP from the device M-Tx lane 1.
3. Connect the Sublink 0 Rx_0N to TxDN from the device M-Tx lane 0.
4. Connect the Sublink 0 Rx_0P to TxDP from the device M-Tx lane 0.
5. Connect the Sublink 1 Rx_1N to RxDN from the device M-Rx lane 1.
6. Connect the Sublink 1 Rx_1P to RxDP from the device M-Rx lane 1.
7. Connect the Sublink 1 Rx_0N to RxDN from the device M-Rx lane 0.
8. Connect the Sublink 1 Rx_0P to RxDP from the device M-Rx lane 0.

## Exerciser Configuration - Falcon G350/G450 only

Note: the labels on the analyzer front panel are from the instrument perspective.

1. Connect the Sublink 0 Rx_1N to TxDN from the device M-Tx lane 1.
2. Connect the Sublink 0 Rx_1P to TxDP from the device M-Tx lane 1.
3. Connect the Sublink 0 Rx_0N to TxDN from the device M-Tx lane 0.
4. Connect the Sublink 0 Rx_0P to TxDP from the device M-Tx lane 0.
5. Connect the Sublink 1 Tx_1N to RxDN from the device M-Rx lane 1.
6. Connect the Sublink 1 Tx_1P to RxDP from the device M-Rx lane 1.
7. Connect the Sublink 1 Tx_0N to RxDN from the device M-Rx lane 0.
8. Connect the Sublink 1 Tx_0P to RxDP from the device M-Rx lane 0.
9. Connect the UFS RST_N to the DUT reset signal
10. If desired, connect the UFS REF CLK to the DUT ref clock input.

## Contact Information

1. For additional information, to request a demonstration or quote, or place an order, please contact your local Protocol Insight representative or sales@protocolinsight.com
2. Support materials and examples files are available at http://www.protocolinsight.com/support-materials/
3. For technical support please contact your local Protocol Insight representative or support@protocolinsight.com