Silver Telecom Product Datasheets contain an Applications Diagram. This shows the electrical connections and typical values of external components required, when using our products.

Always consult the datasheet before performing parametric testing.

The basic parametric test circuits, used by Silver Telecom when testing PSTN Interfaces, are shown on the following pages.

Note that the PSTN interface may be known as a COIC, DAA or FXO interface. This depends on the application in which it is used.
TEST CIRCUITS FOR PSTN INTERFACES

DC ELECTRICAL TESTS

Test Circuit 1

ANX-TEST_PSTN-1v1.1
TEST CIRCUITS FOR PSTN INTERFACES

TRANSMIT GAIN TEST (2W TO 4W)

Test Circuit 2

Transmit Gain = 20 \log(V_{OUT} / V_{T-R})
TEST CIRCUITS FOR PSTN INTERFACES

RECEIVE GAIN TEST (4W TO 2W) AND TRANS HYBRID LOSS

Receive Gain = 20 log(V_{T-R} / V_{IN})

Trans Hybrid Loss = 20 log(V_{OUT} / V_{IN})
TEST CIRCUITS FOR PSTN INTERFACES

CMESSAGE NOISE AT 4W AND 2W

4W Noise = 20 \log\left(\frac{V_{T-R}}{0.775}\right) \text{ NOTE: } V_{T-R} \text{ with a Cmess Filter}

2W Noise = 20 \log\left(\frac{V_{OUT}}{0.775}\right) \text{ NOTE: } V_{OUT} \text{ with a Cmess Filter}

ANX-TEST_PSTN-1v1.1
TEST CIRCUITS FOR PSTN INTERFACES

RETURN LOSS

Return Loss = 20 log(2V_{RL} / V_S)

Test Circuit 5

ANX-TEST_PSTN-1v1.1
CMRR AND LONGITUDINAL TO METALLIC BALANCE

Test Circuit 6

CMRR = 20 \log(V_{OUT} / V_S)

Longitudinal To Metallic Balance = 20 \log(V_{T-R} / V_S)
Metallic to Longitudinal Balance = 20 \log(2V_{CT} / V_{T-R})

ANX-TEST_PSTN-1v1.1