TEST CIRCUITS FOR PSTN INTERFACES

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

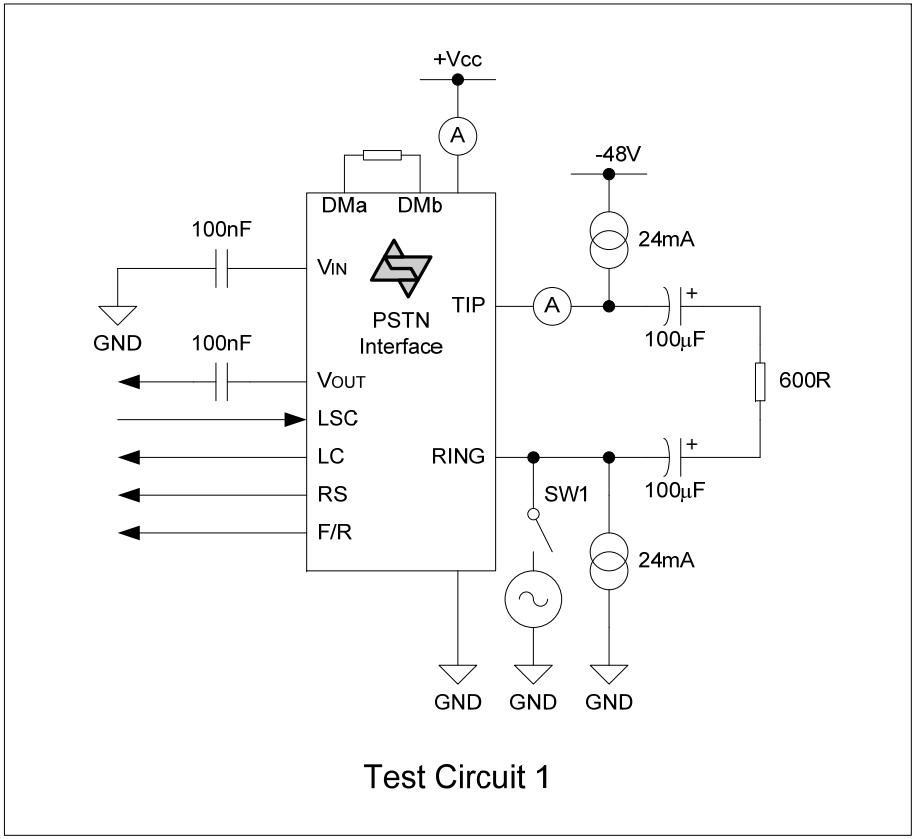
Always consult the datasheet before performing parametric testing.

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.

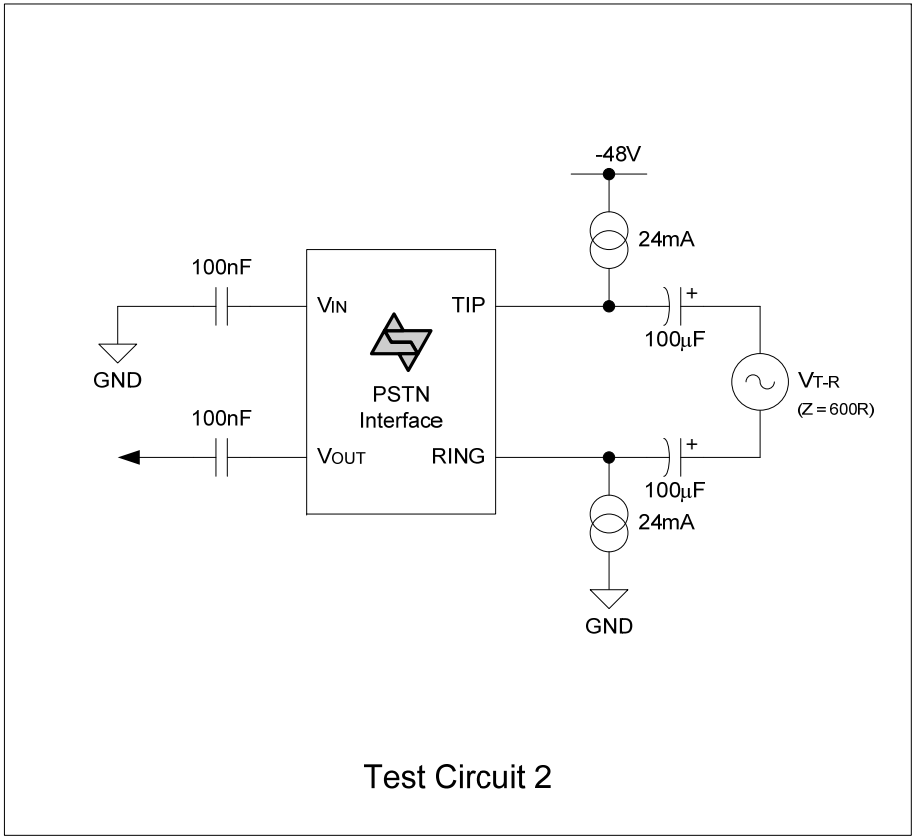
TEST CIRCUITS FOR PSTN INTERFACES

DC ELECTRICAL TESTS



Test Circuit 1

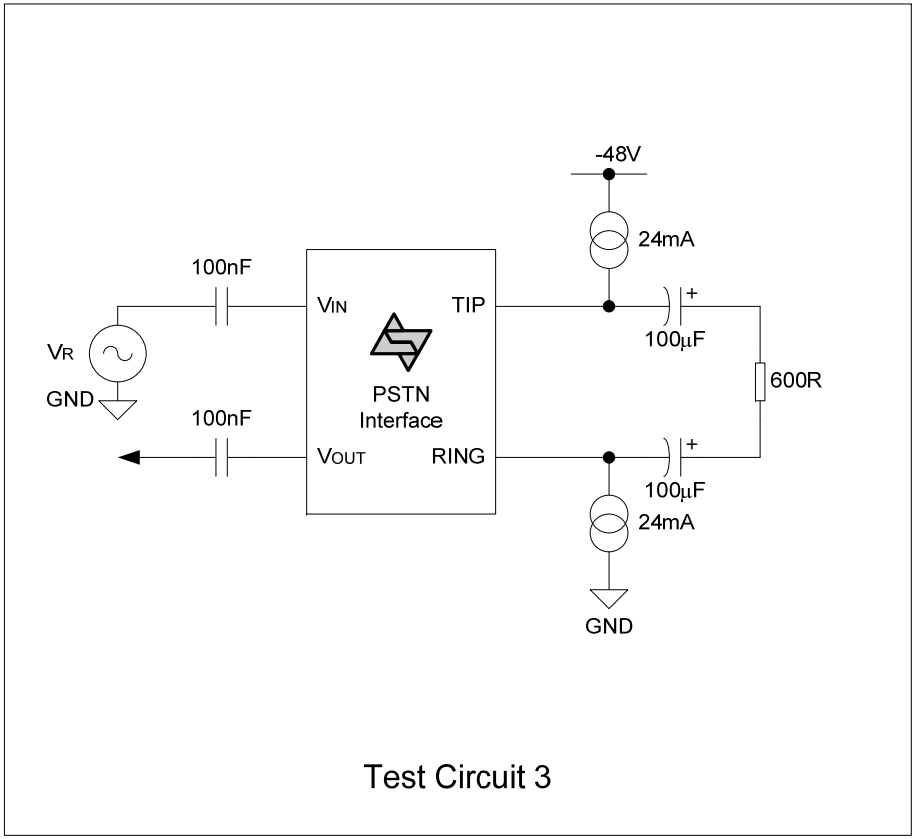
TRANSMIT GAIN TEST (2W TO 4W)



Test Circuit 2

Transmit Gain = $20 \log(V_{OUT} / V_{T-R})$

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



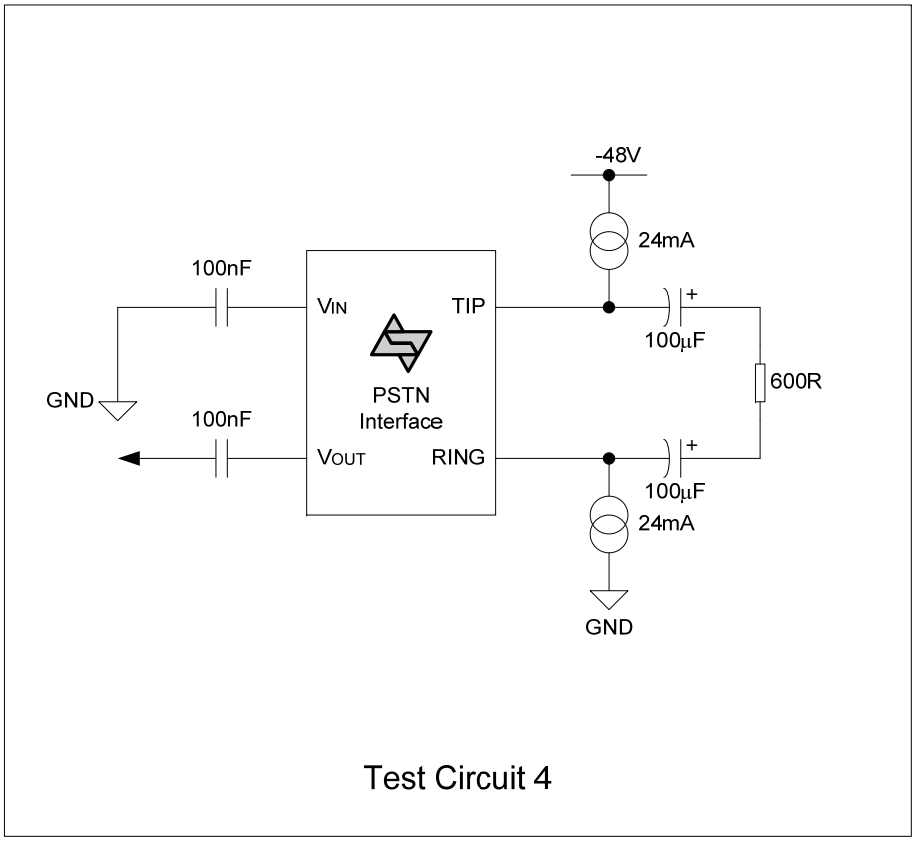
Test Circuit 3

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

Trans Hybrid Loss = $20 \log(V_{OUT} / V_{IN})$

Silvertel

CMESSAGE NOISE AT 4W AND 2W

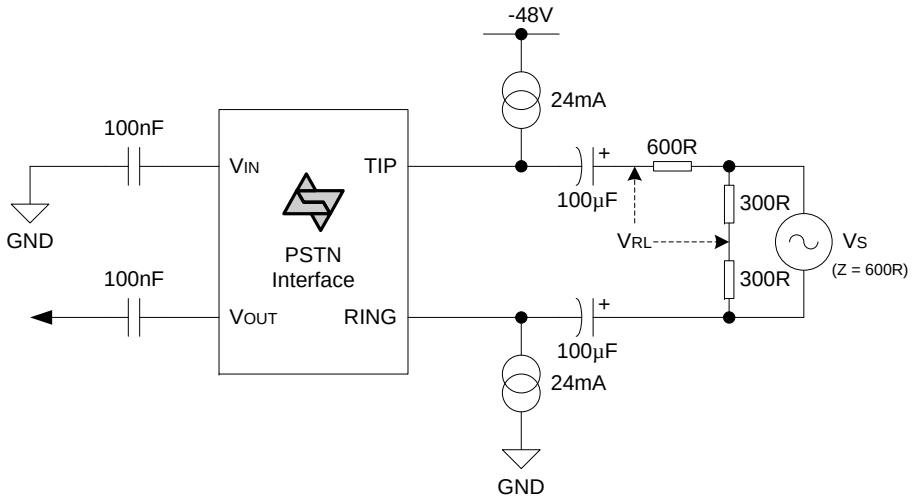


Test Circuit 4

4W Noise = 20 log(V_{T-R} / 0.775) NOTE: V_{T-R} with a Cmess Filter

2W Noise = 20 log(V_{OUT} / 0.775) NOTE: V_{OUT} with a Cmess Filter

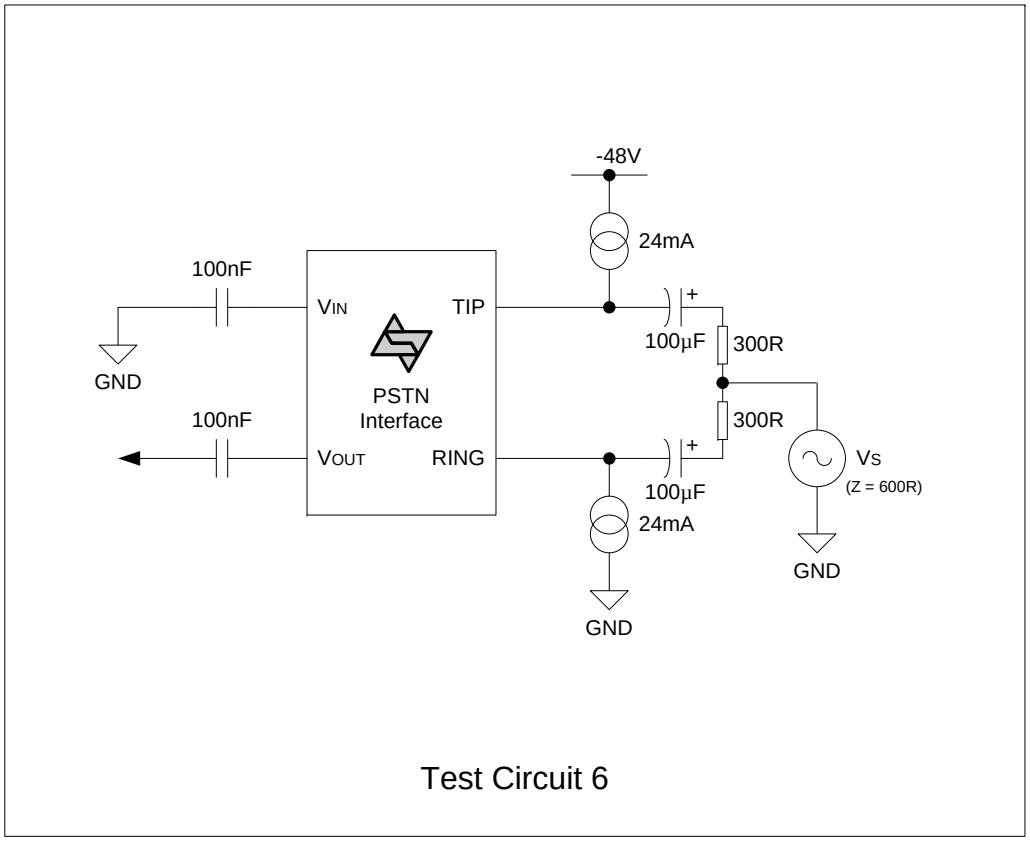
RETURN LOSS



Test Circuit 5

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

CMRR AND LONGITUDINAL TO METALLIC BALANCE

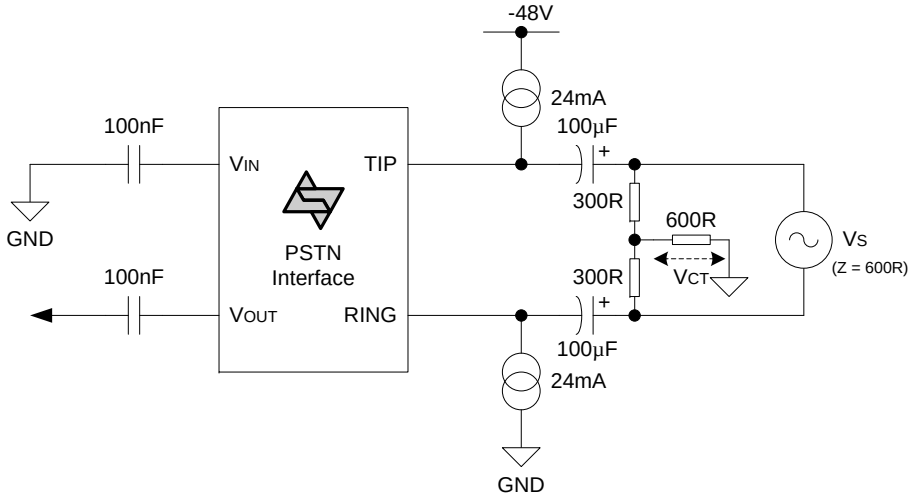


Test Circuit 6

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

$$\text{Longitudinal To Metallic Balance} = 20 \log(V_{T\text{-}R} / V_S)$$

METALLIC TO LONGITUDINAL BALANCE



Test Circuit 7

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