



MGRT2-R DC Footprint May 2015

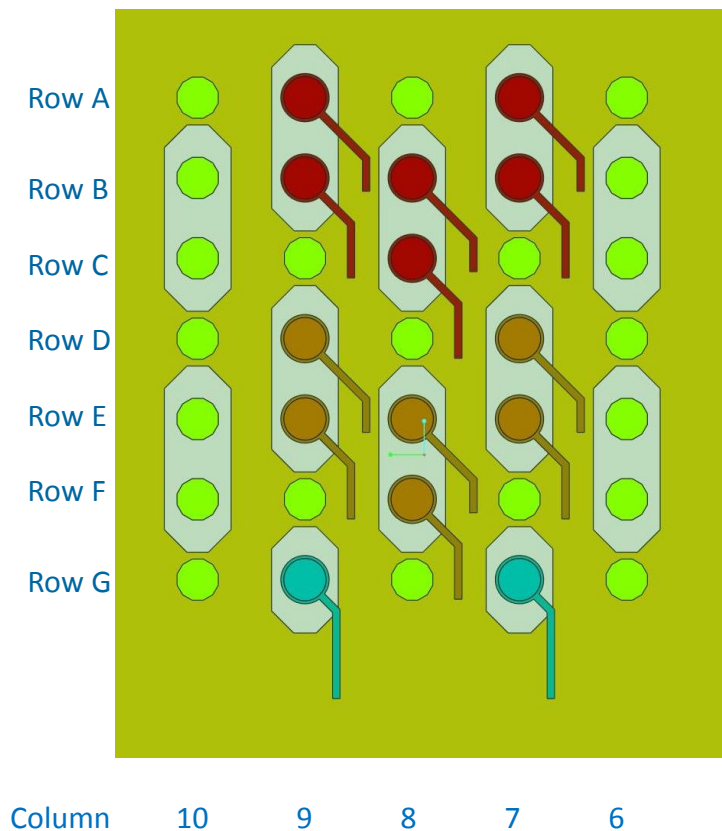


Graham Smith & Hung Nguyen

June 2, 2015

MGRT2 DC Footprint

Edge coupled Stripline



Daughter Card Footprint Grid :1.8mmx1.35mm

Trace width: 5mils

Pad size: top=.712mm (D+6 mils)

Pad size: signal layer=.8128mm (D+10mils)

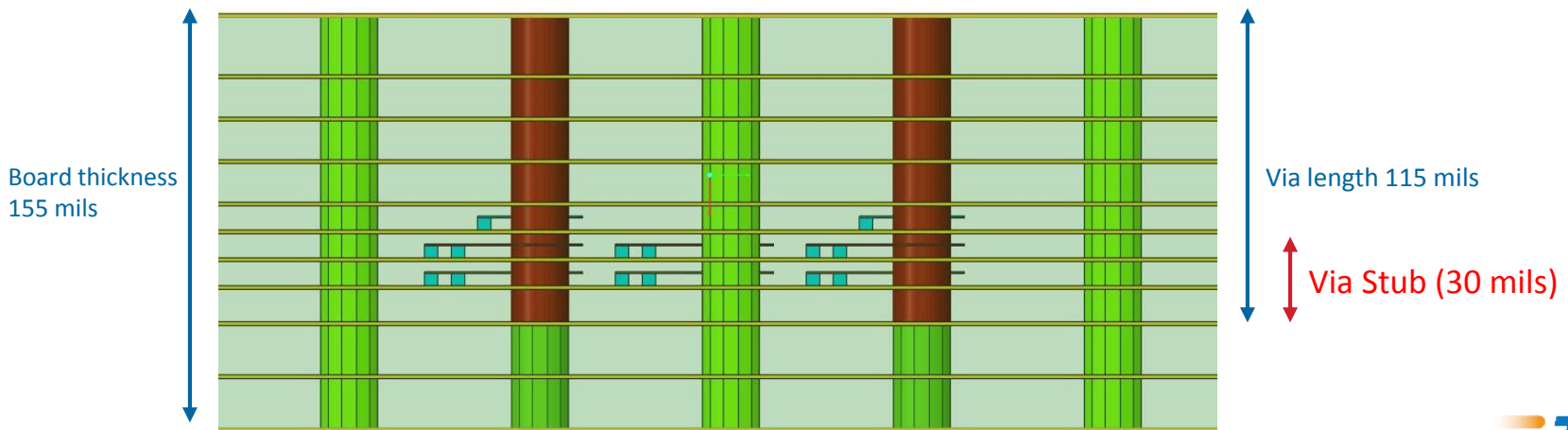
2 signal layers: Pair AB and BC on same layer
Stub length 30mils; Pair DE and EF on same
layer stub length 19mils; SE pair Stub length 40
mils.

Trace length = 2mm from center of via to end
of trace (equal length for all DE pairs), SE trace
length 2.17mm

MGRT2 DC Footprint- Side view

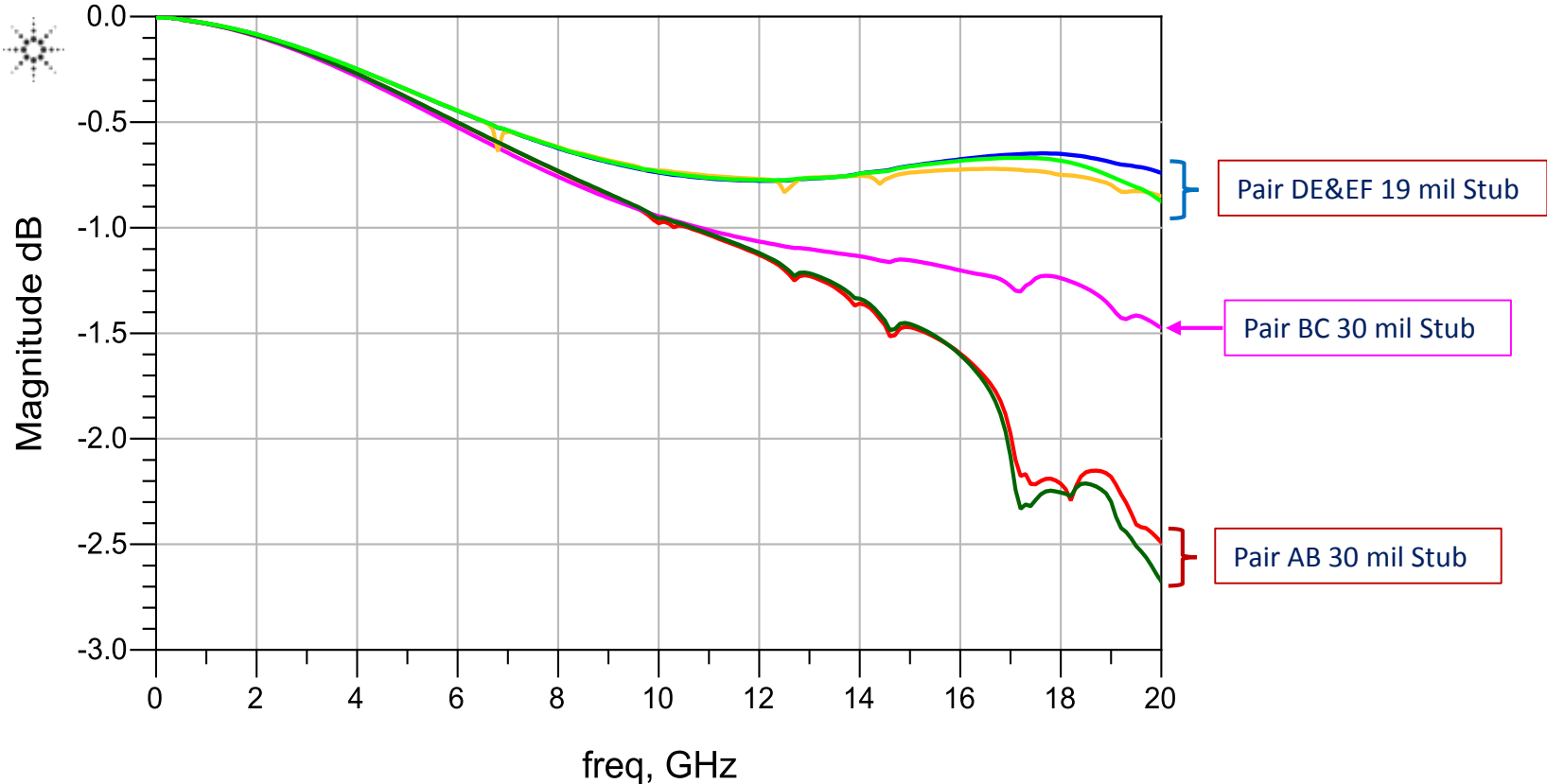
Edge coupled Stripline

Trace thickness: .7 mils (1/2 oz. Cu); Ground layers: 1oz Cu
Trace width: 5 mils
Megtron 6 : $\epsilon=3.5$; $\tan\delta=.009$
Height: 10.3 mils (between ground layers)
Via length: 115 mils
Via Stub: Pair AB and BC on same layer Stub length 30mils; Pair DE and EF on same layer stub length 19mils; SE pair Stub length 40 mils.



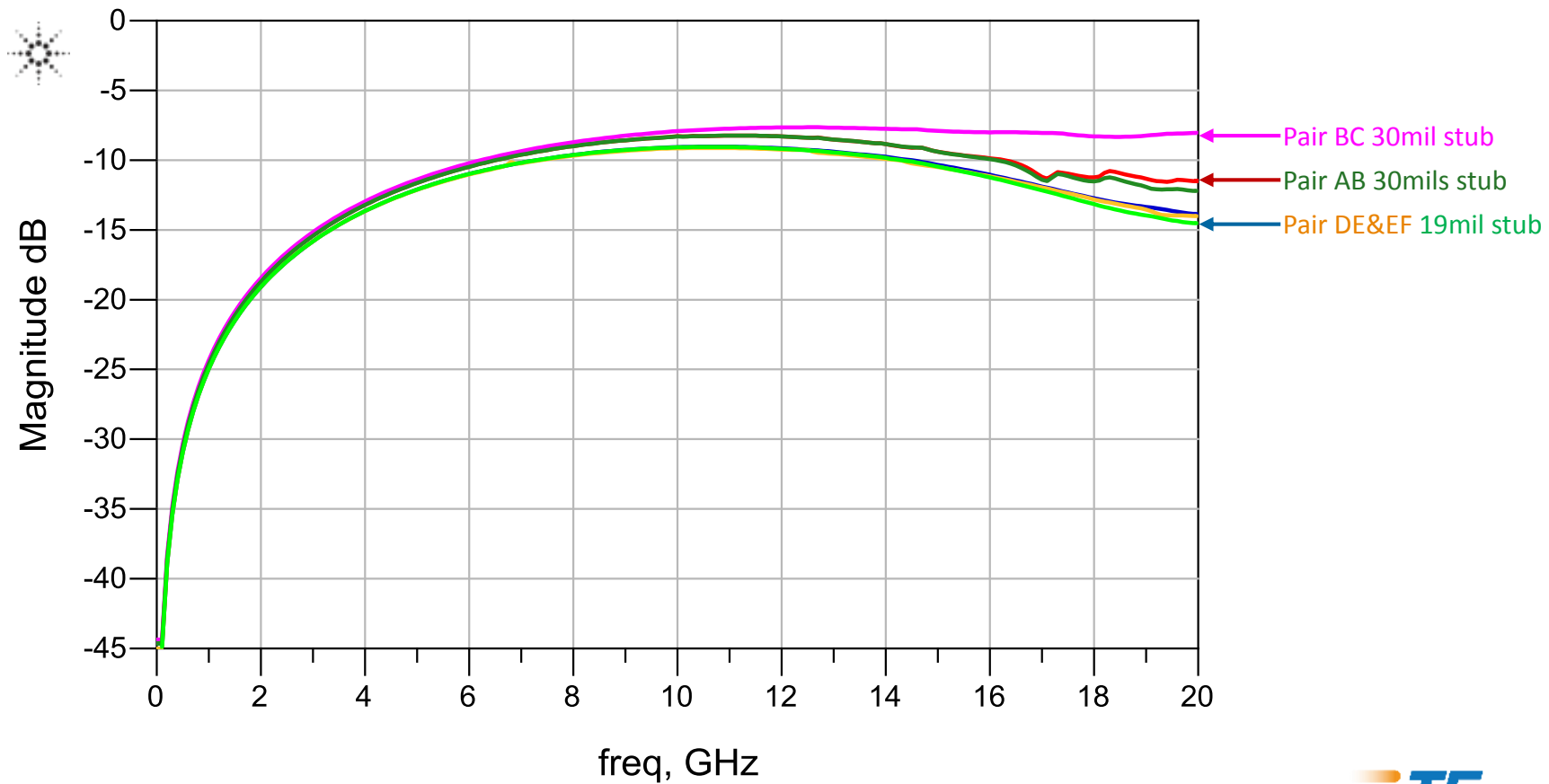
MGRT2 DC Footprint Edge coupled Stripline

MGRT2-R DC Footprint Differential IL



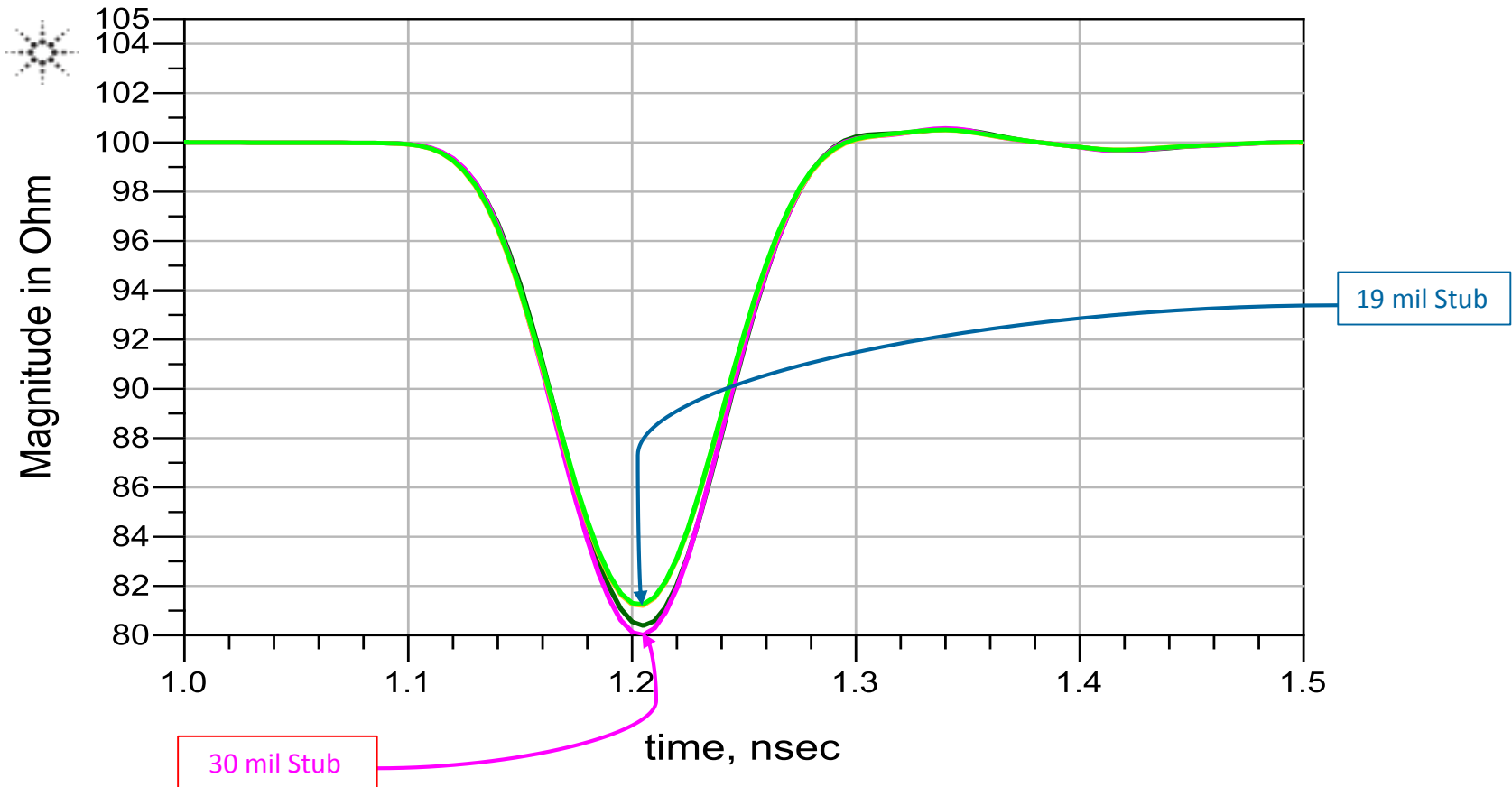
MGRT2 DC Footprint Edge coupled Stripline

MGRT2-R DC Footprint Differential RL



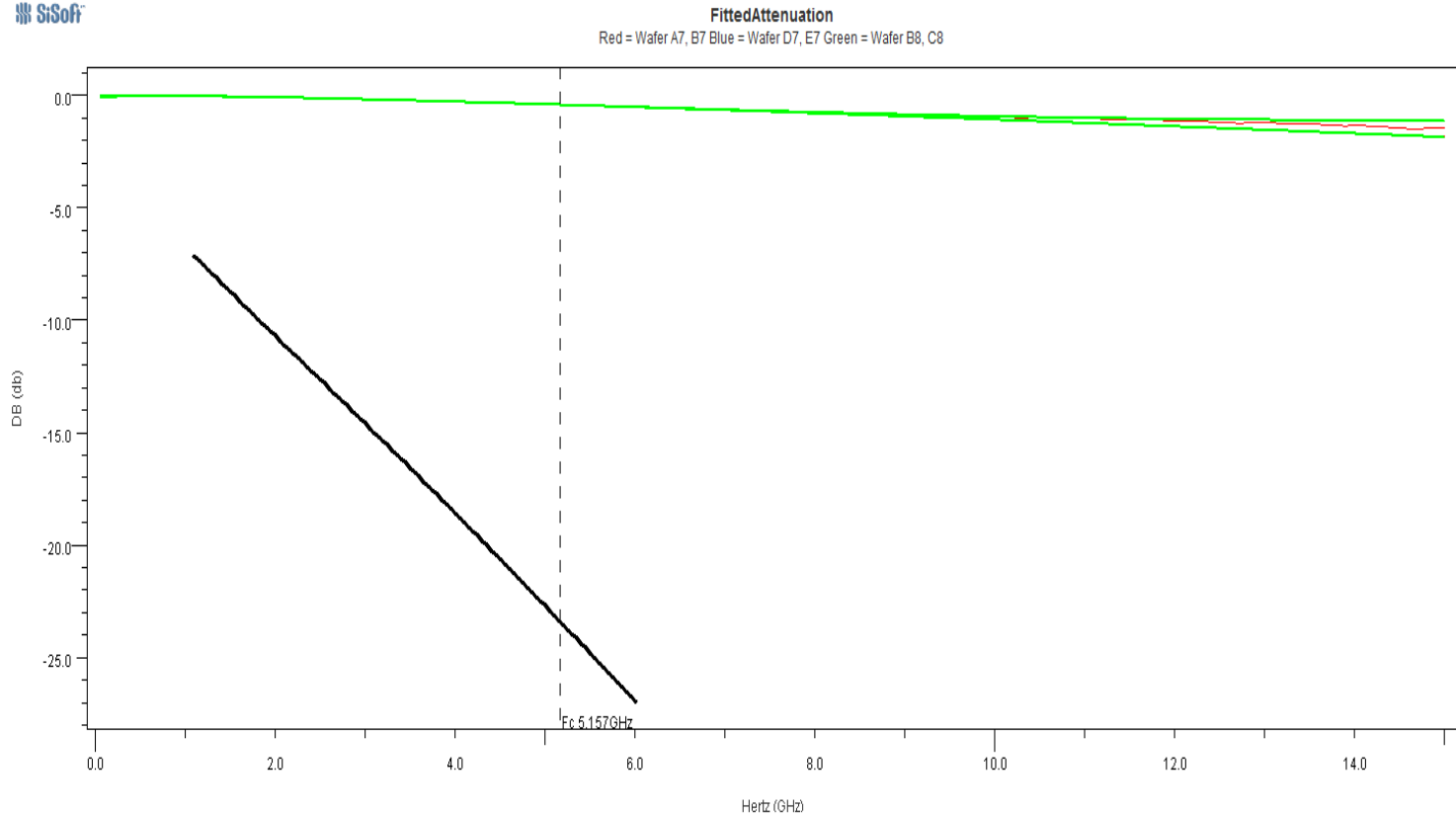
MGRT2 DC Footprint Edge coupled Stripline

MGRT2-R DC Footprint - Via Impedance w/ 50ps risetime



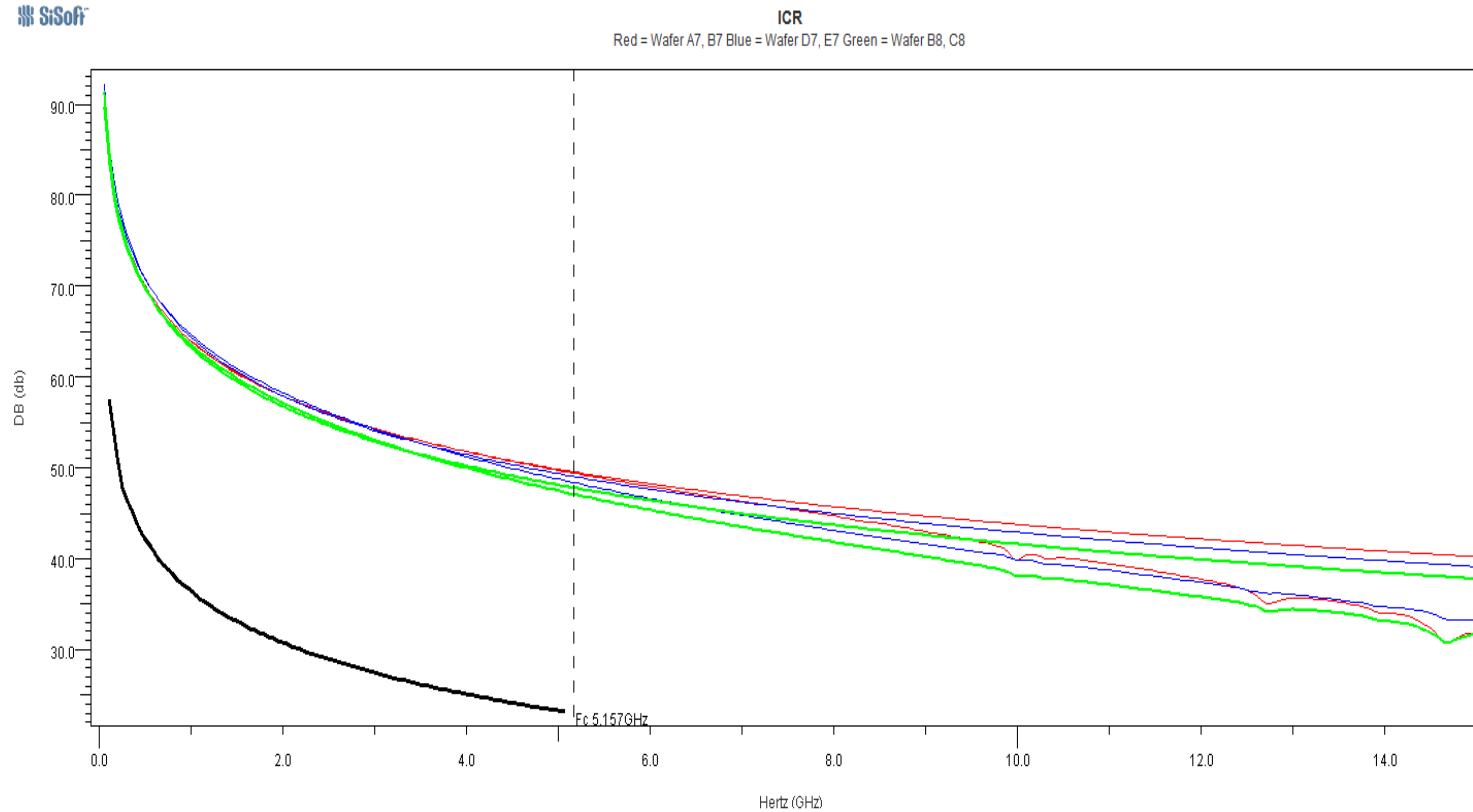
MGRT2 DC Footprint- Edge coupled Stripline Fitted Attenuation

SiSoft



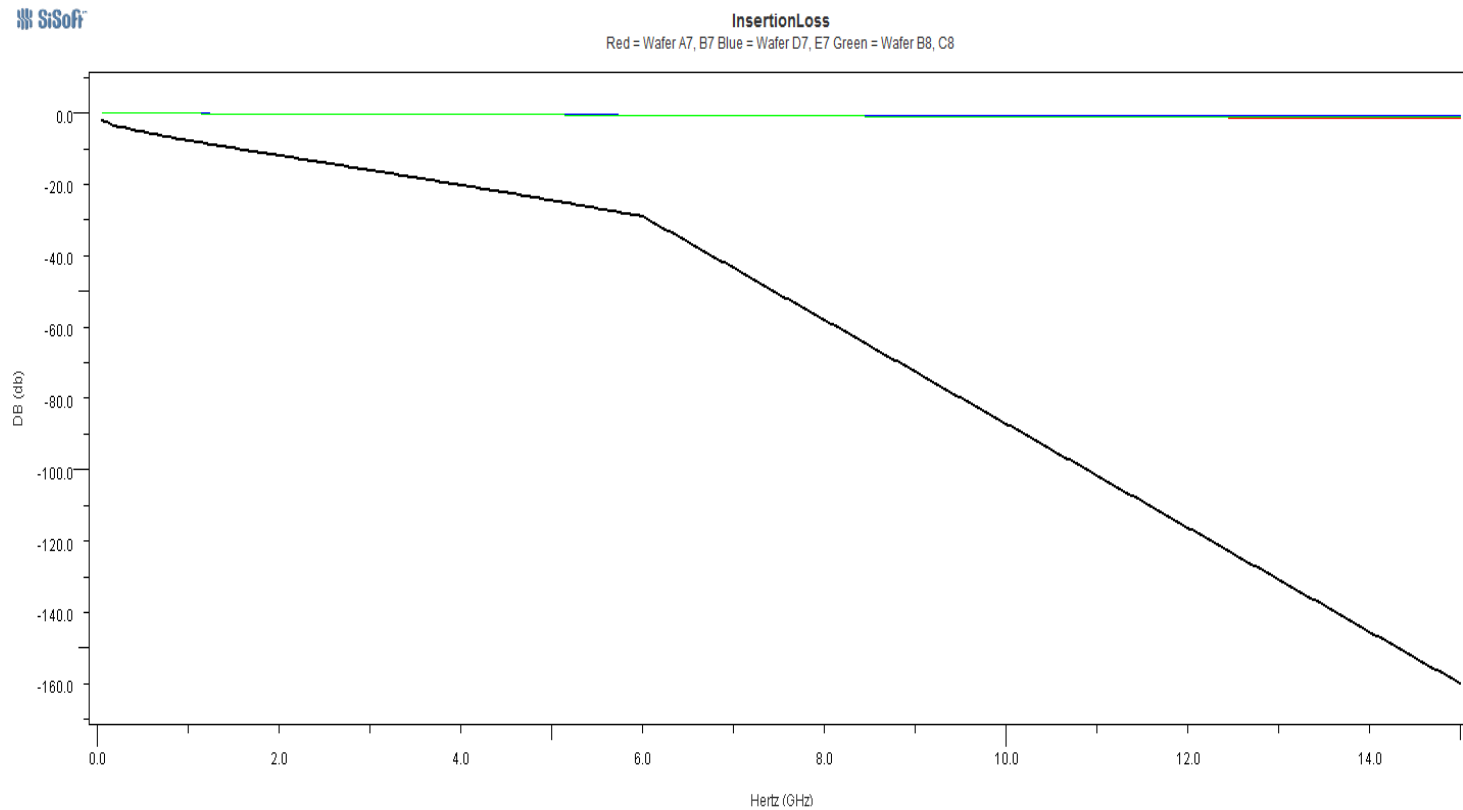
Courtesy of Mercury Computer

MGRT2 DC Footprint- Edge coupled Stripline ICR



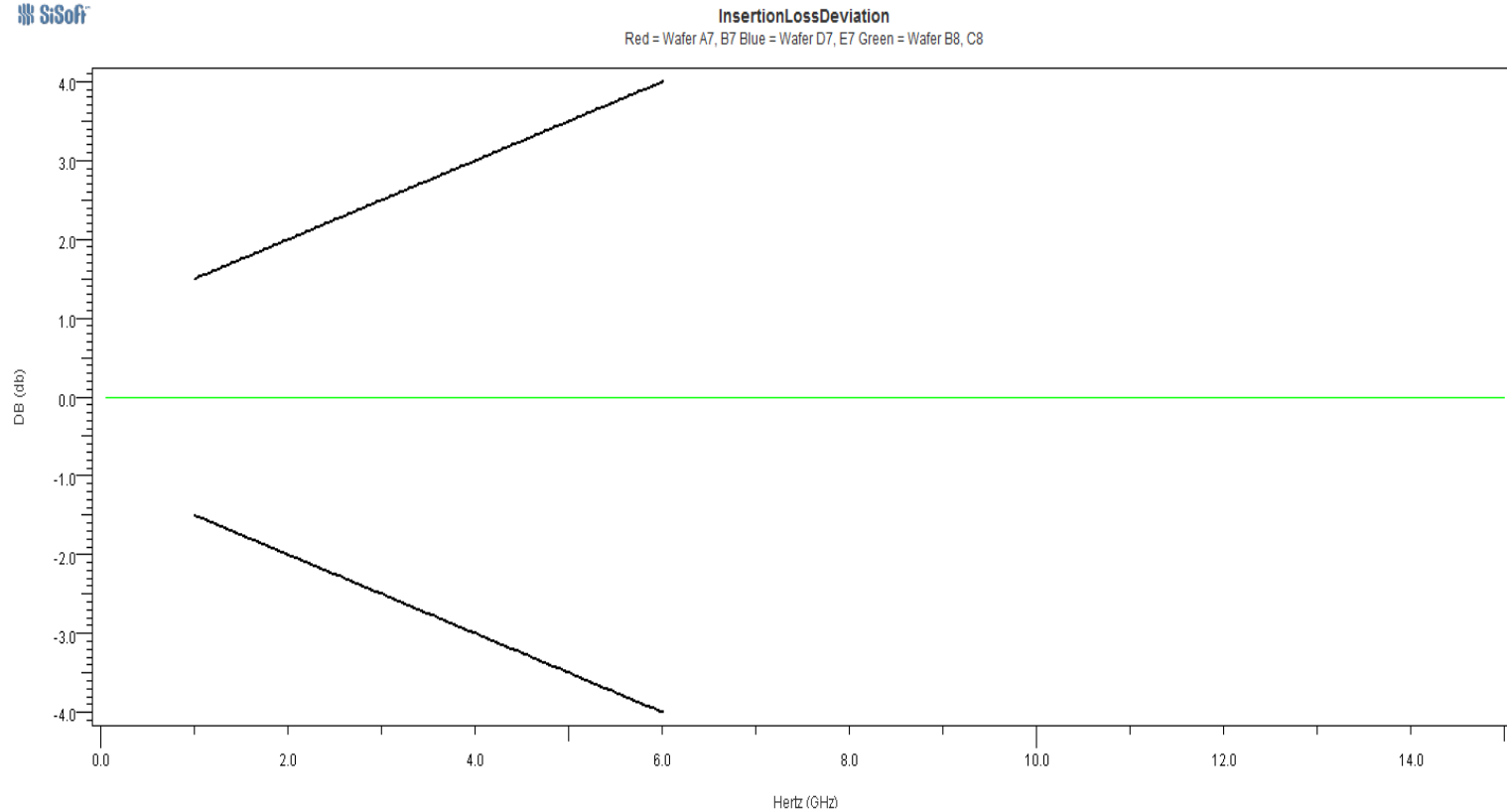
Courtesy of Mercury Computer

MGRT2 DC Footprint- Edge coupled Stripline Insertion loss



Courtesy of Mercury Computer

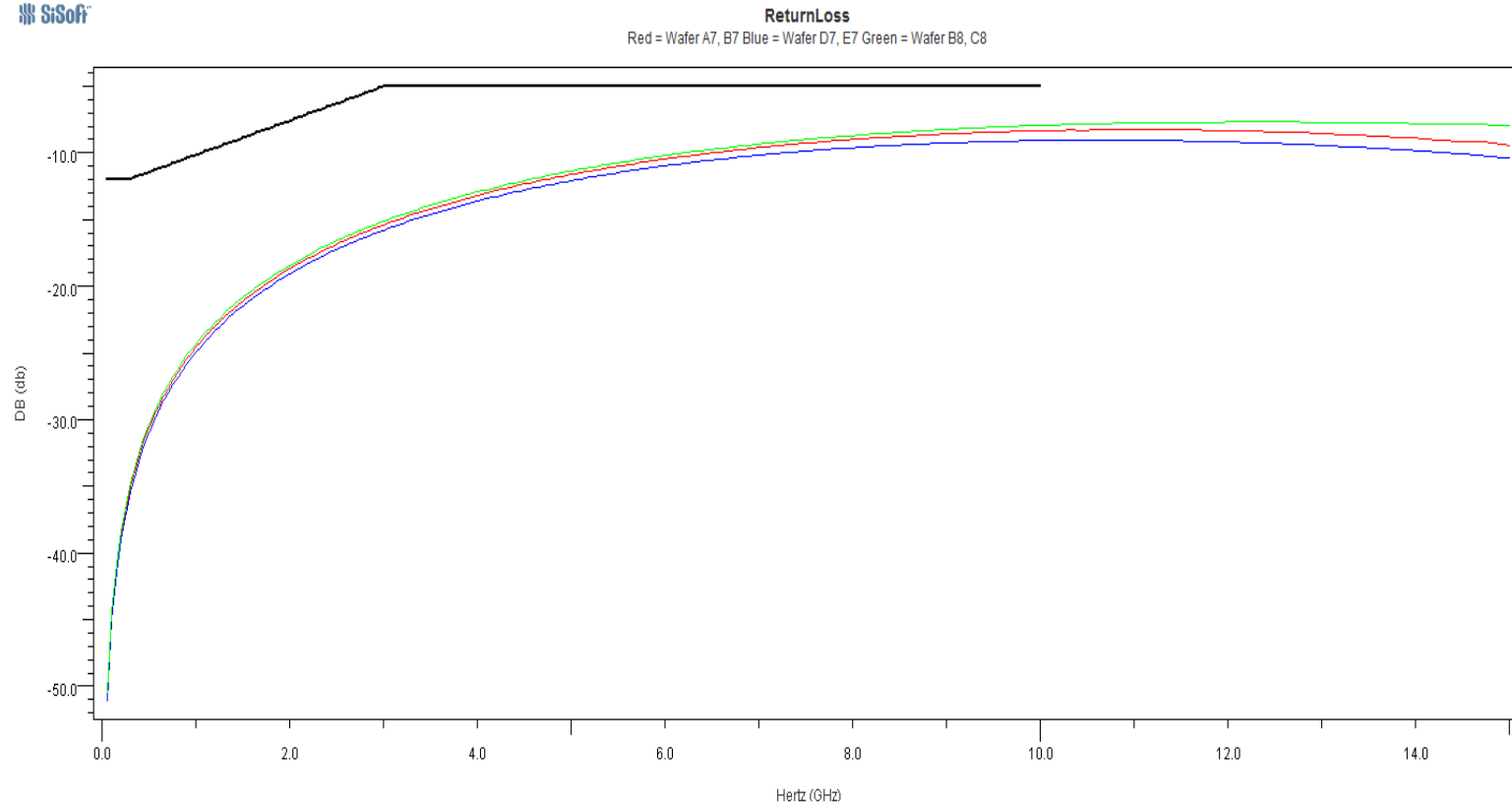
MGRT2 DC Footprint- Edge coupled Stripline Insertion loss Deviation



Courtesy of Mercury Computer

MGRT2 DC Footprint- Edge coupled Stripline Return loss

SiSoft



Courtesy of Mercury Computer