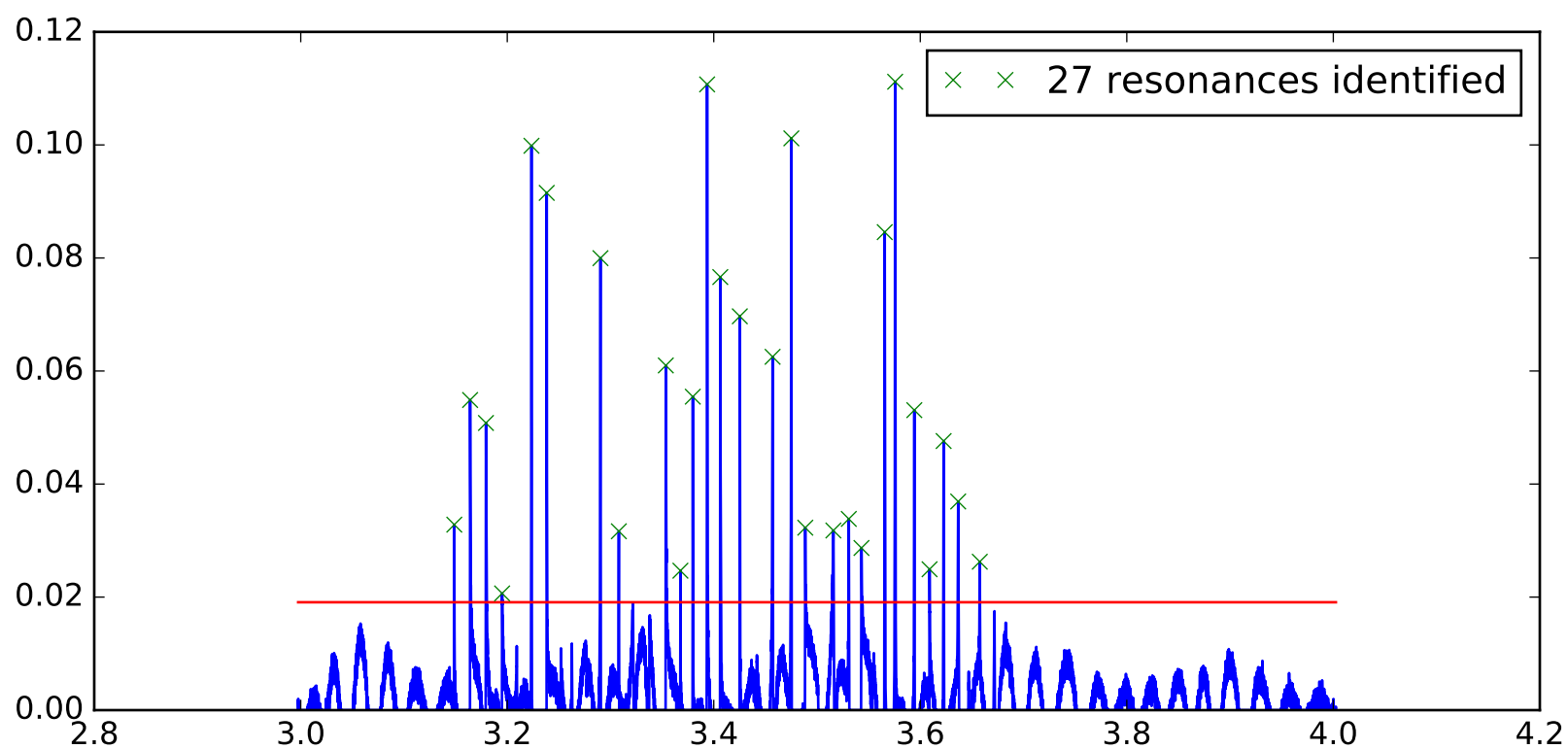
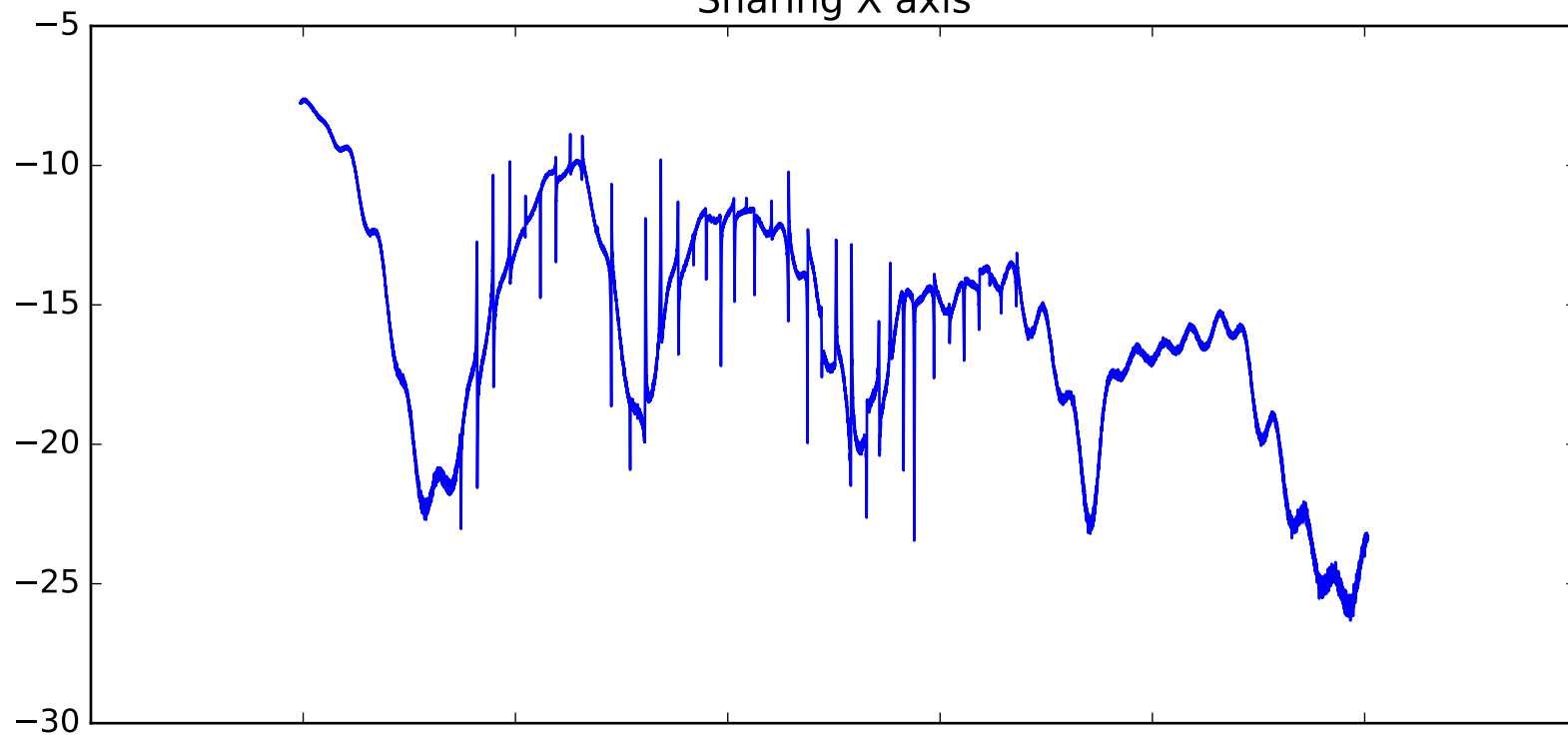
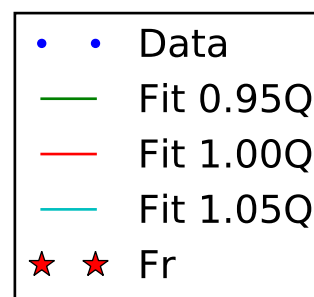
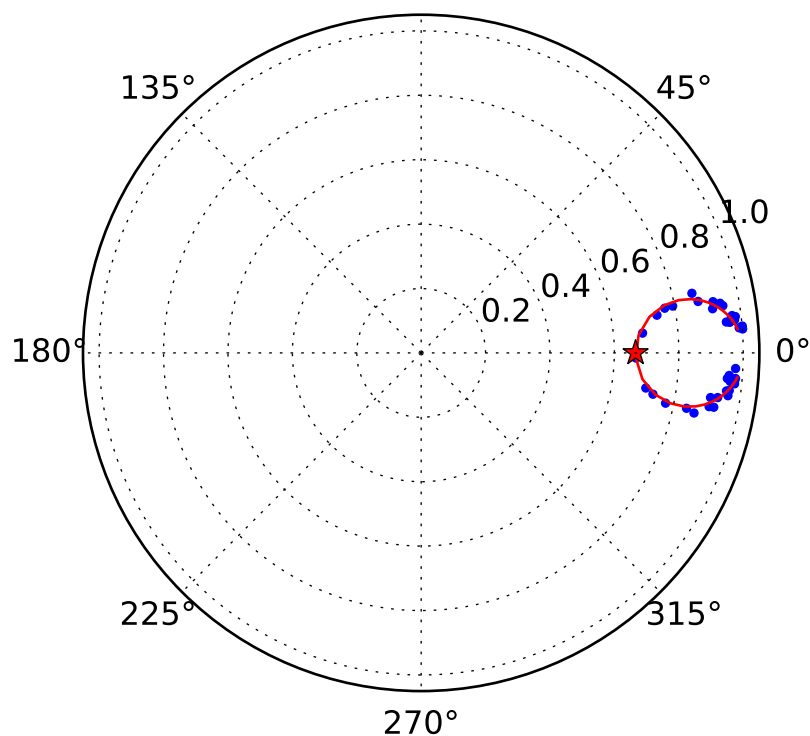
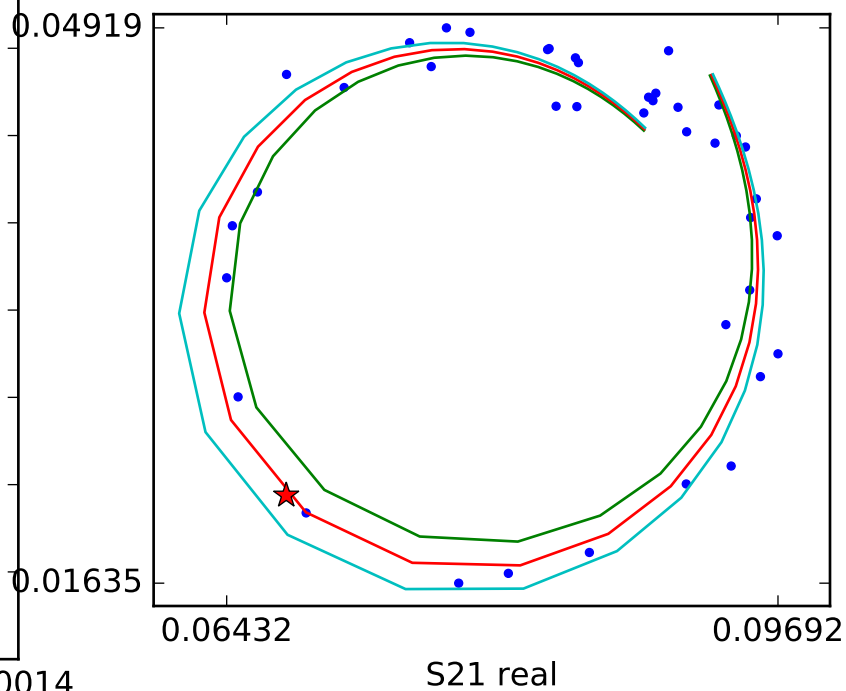
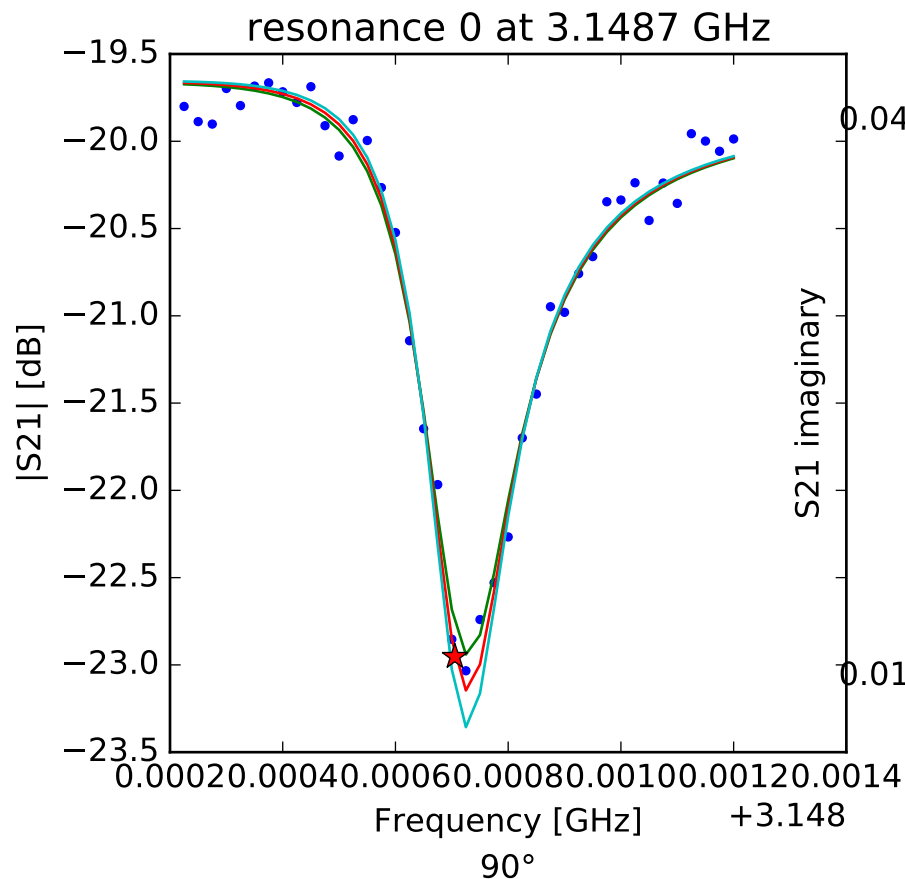


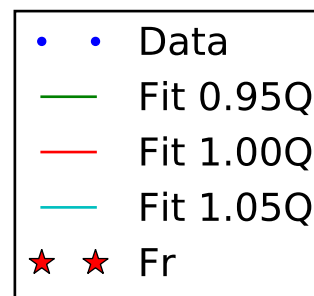
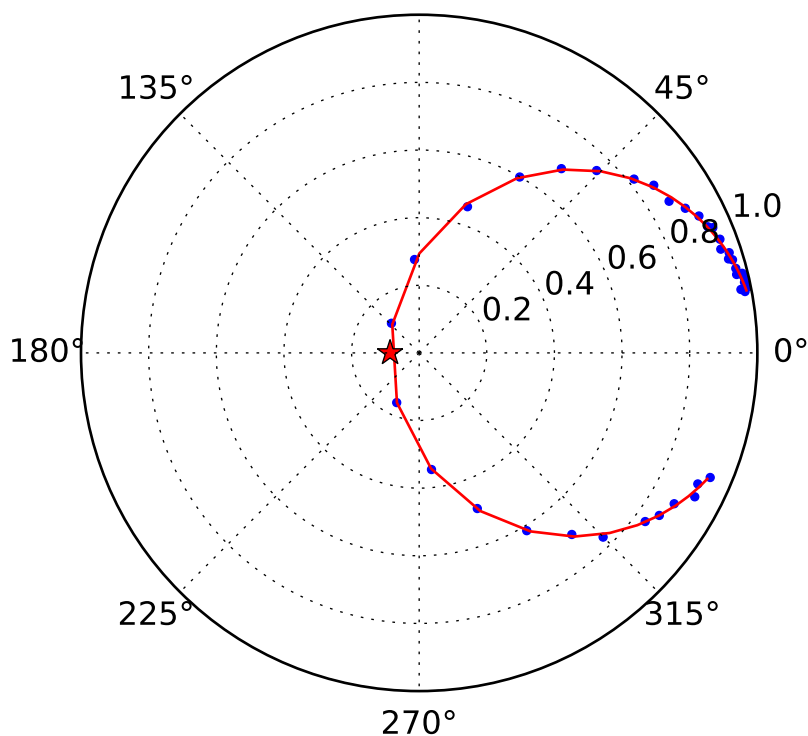
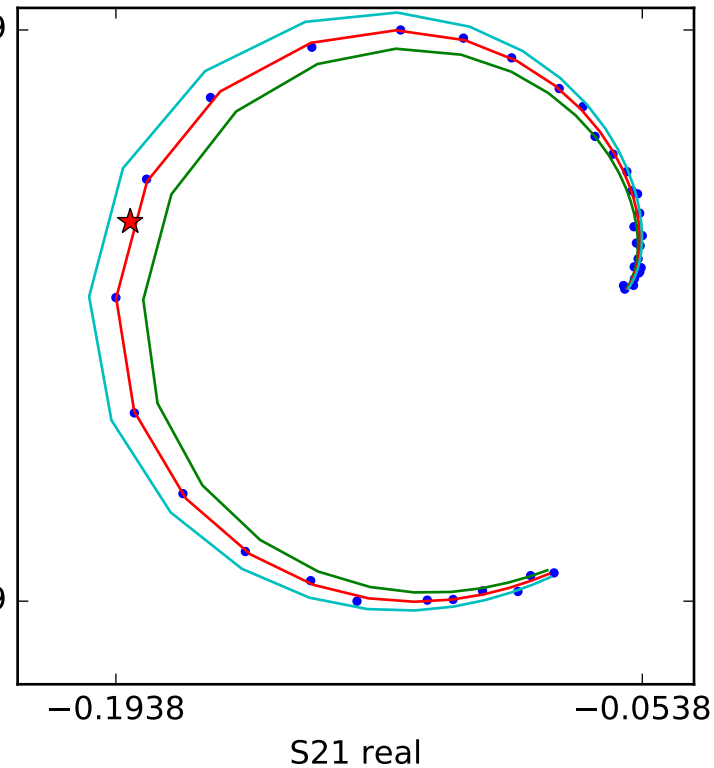
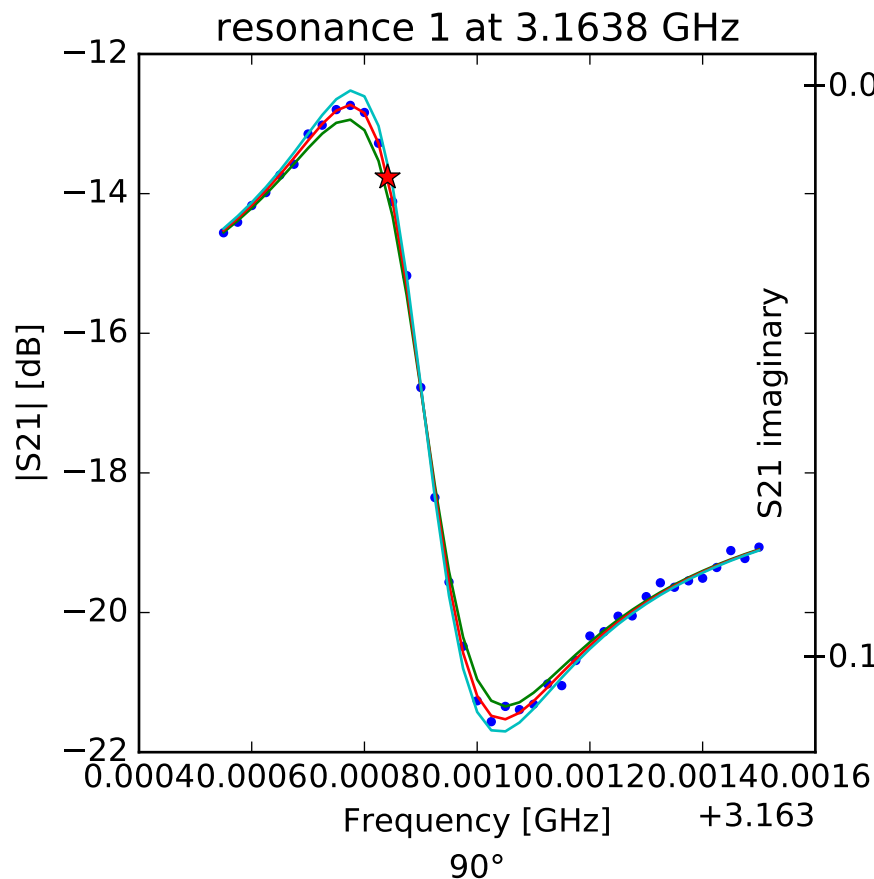
Sharing X axis





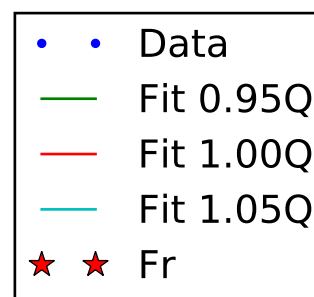
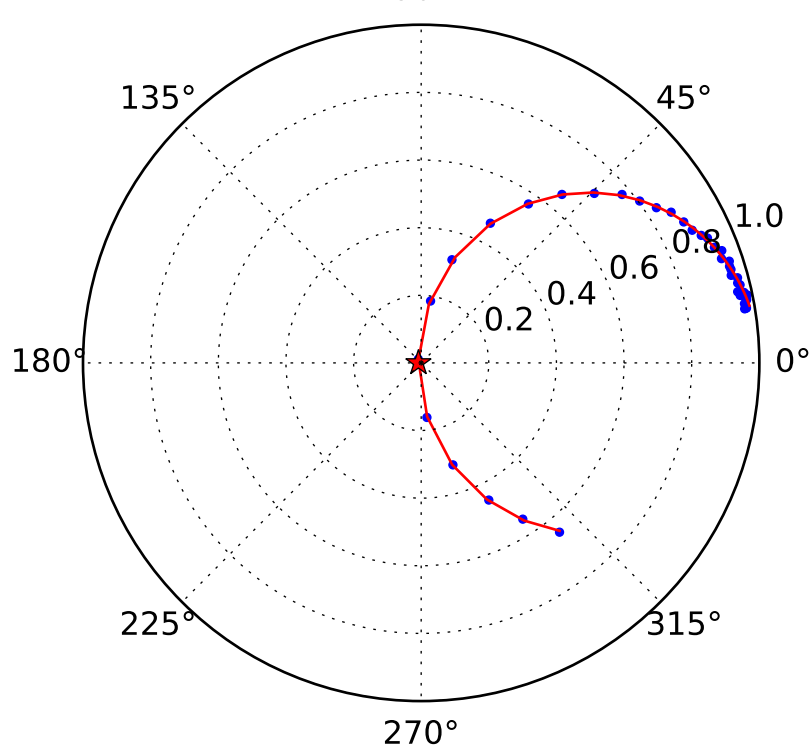
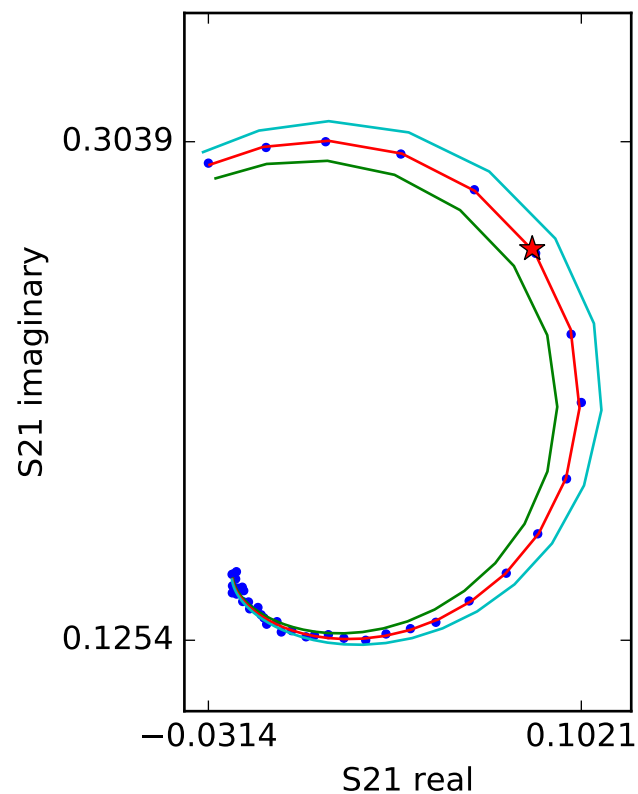
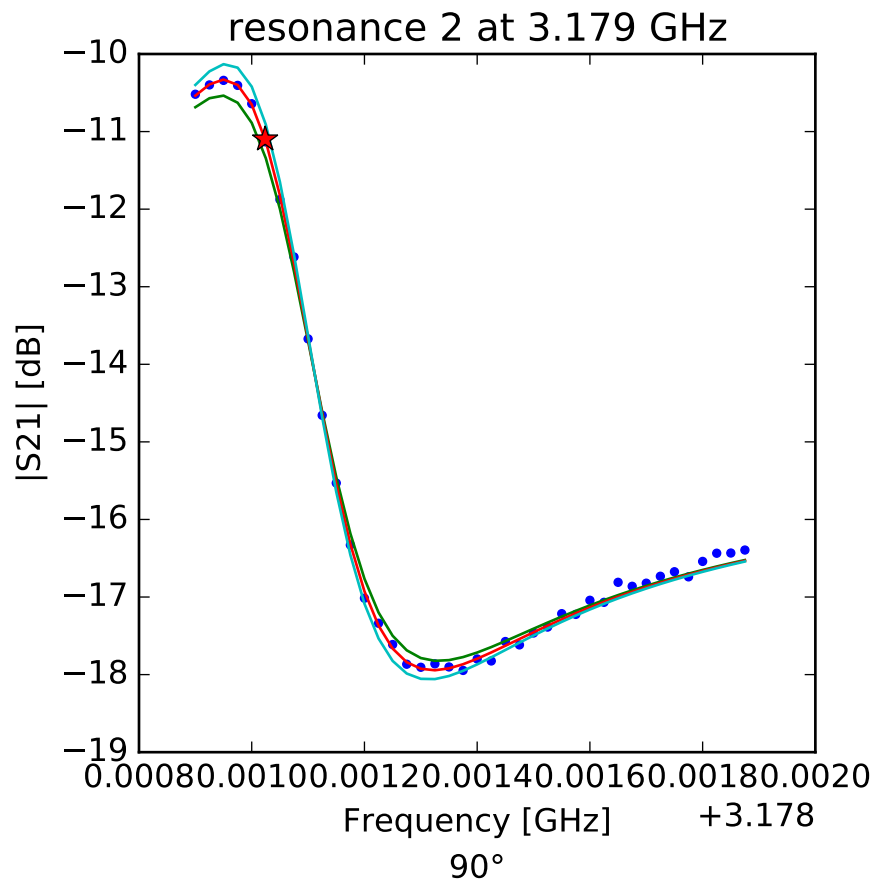
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.14870536638$
 $Q_r = 13564.5707458$
 $Q_c = 40572.1206205$
 $a = (0.0144349930572 + 0.10187262028j)$
 $\phi = 0.327326688239$
 $\tau = 25.4561214421$



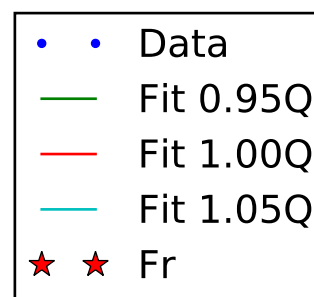
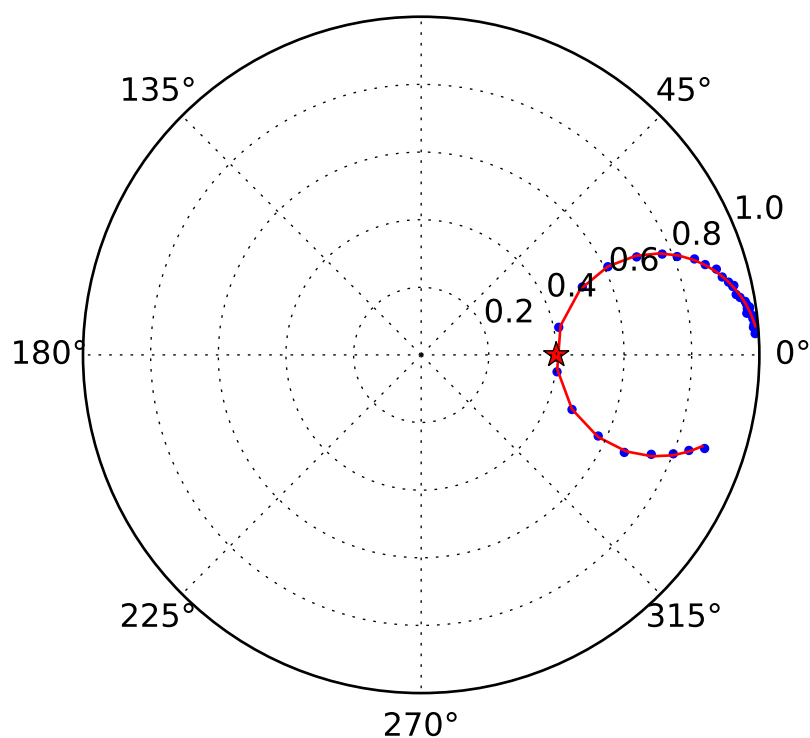
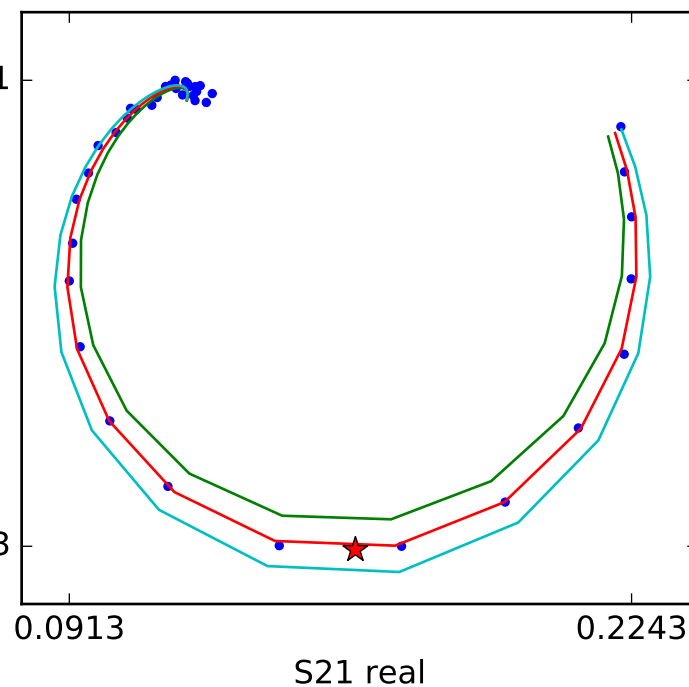
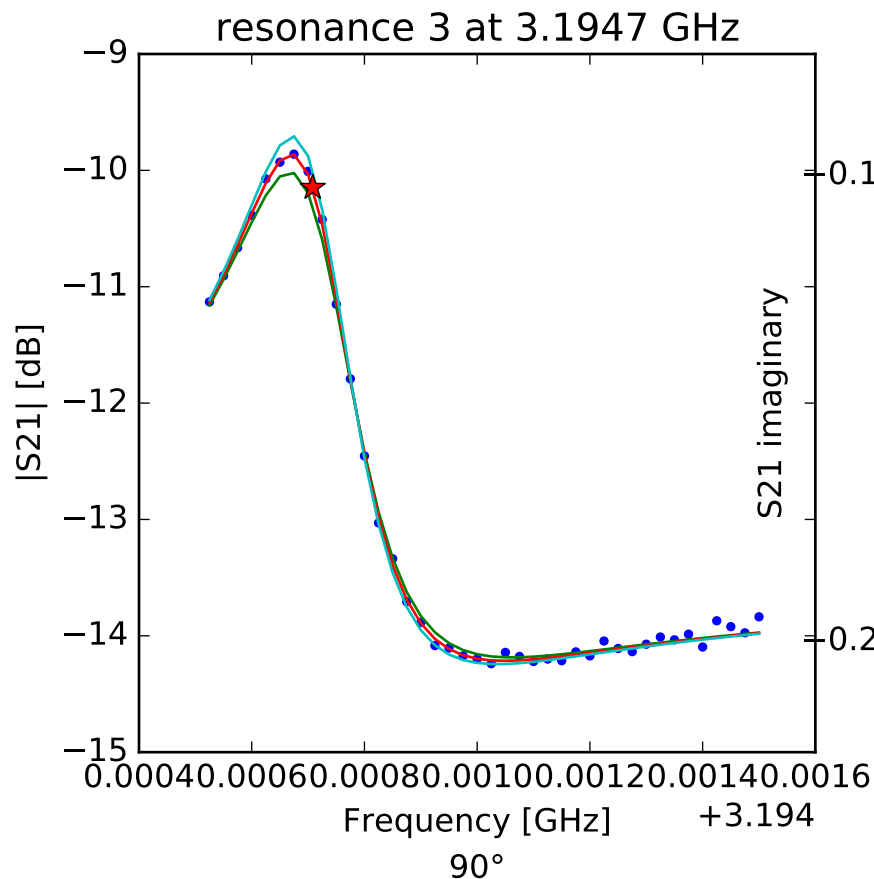
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.16384100336$
 $Q_r = 13681.7444038$
 $Q_c = 12597.0124183$
 $a = (-0.00483188796067 - 0.135446409527j)$
 $\phi = 1.62068053764$
 $\tau = 26.5676608504$



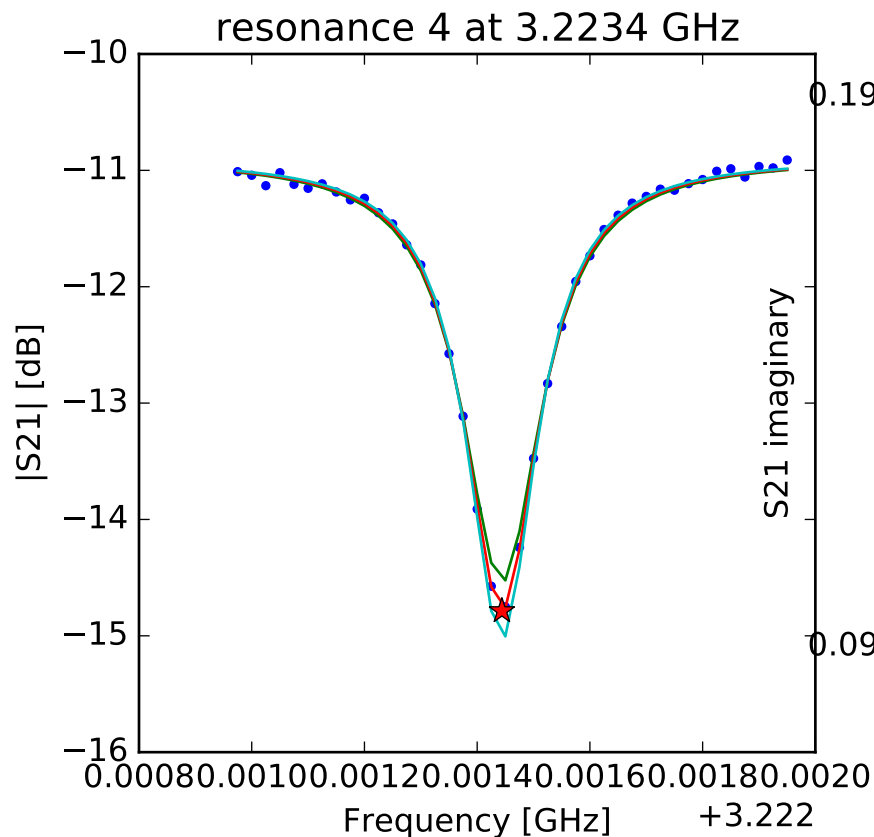
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.17902380934$
 $Q_r = 10789.4016696$
 $Q_c = 10702.5214902$
 $a = (-0.0809220314953 + 0.156664605489j)$
 $\phi = 1.81186235856$
 $\tau = 23.283444369$



$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

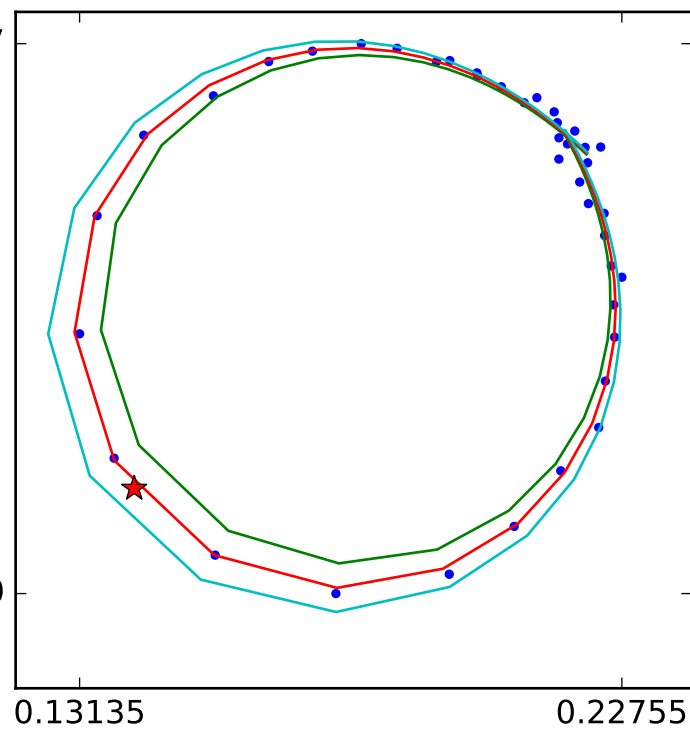
$f_r = 3.19470818019$
 $Q_r = 13951.6751634$
 $Q_c = 23228.8420317$
 $a = (0.209938669617 - 0.0220587711551j)$
 $\phi = 2.30883530708$
 $\tau = 27.263567452$



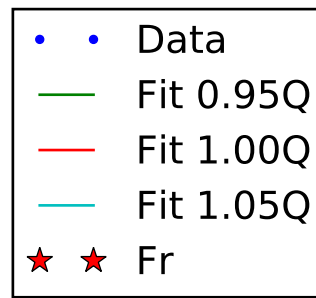
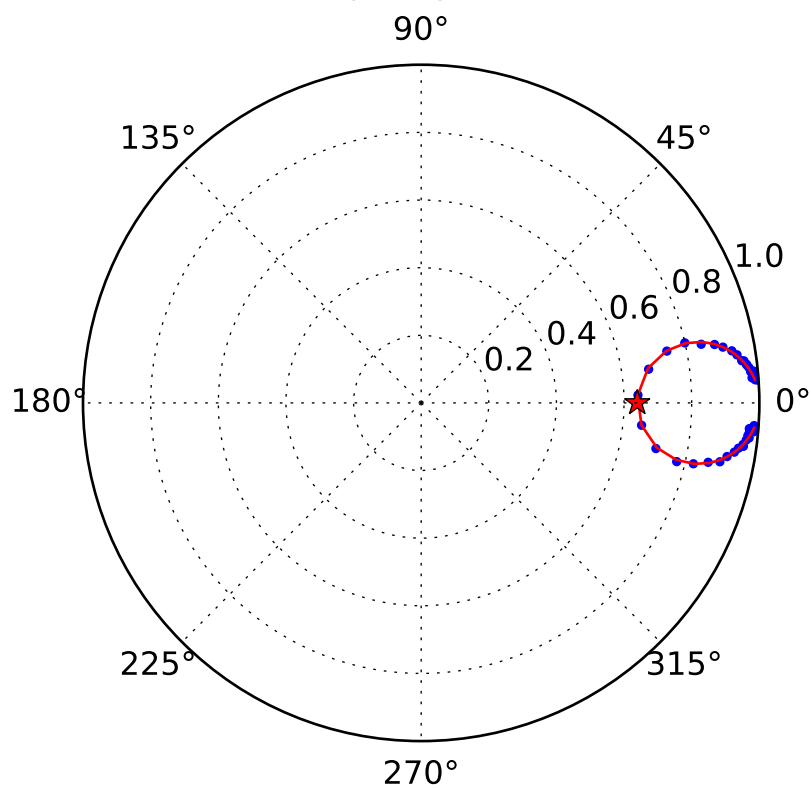
0.19437

S21 imaginary

0.09680

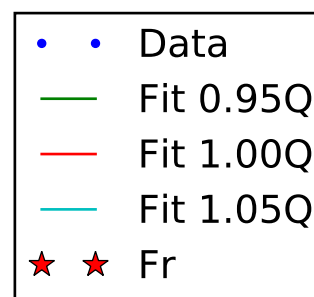
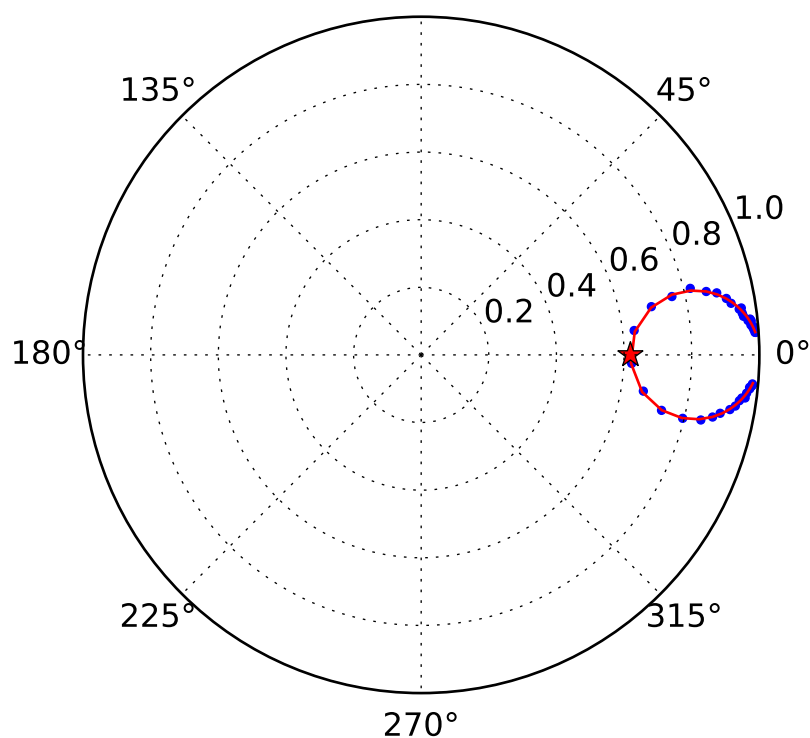
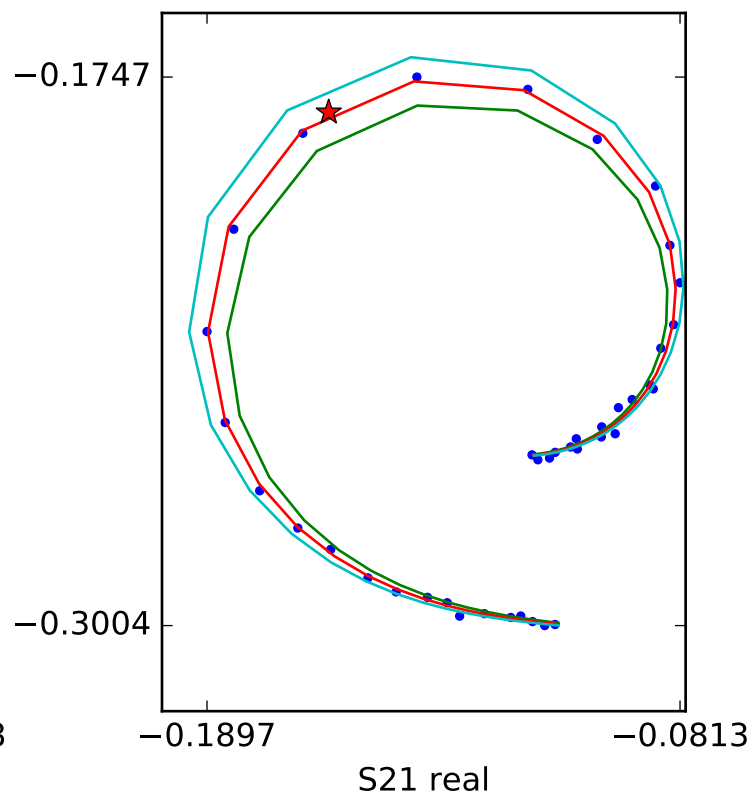
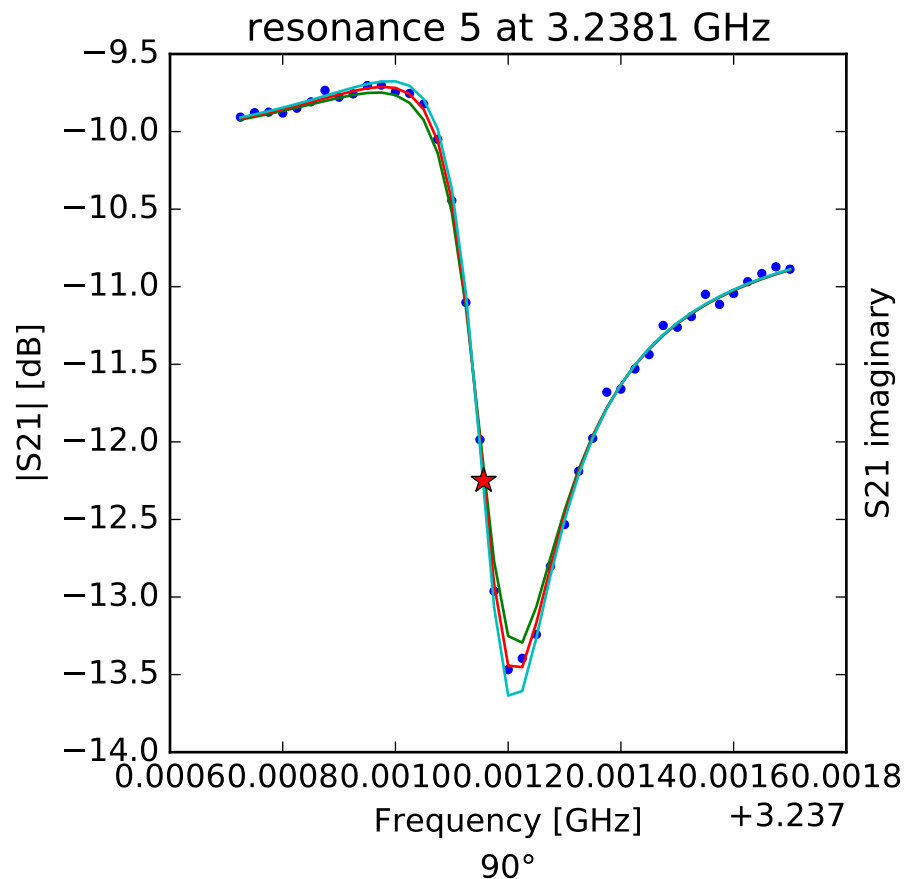


S21 real



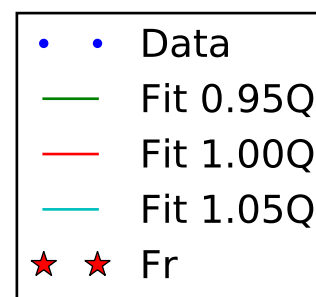
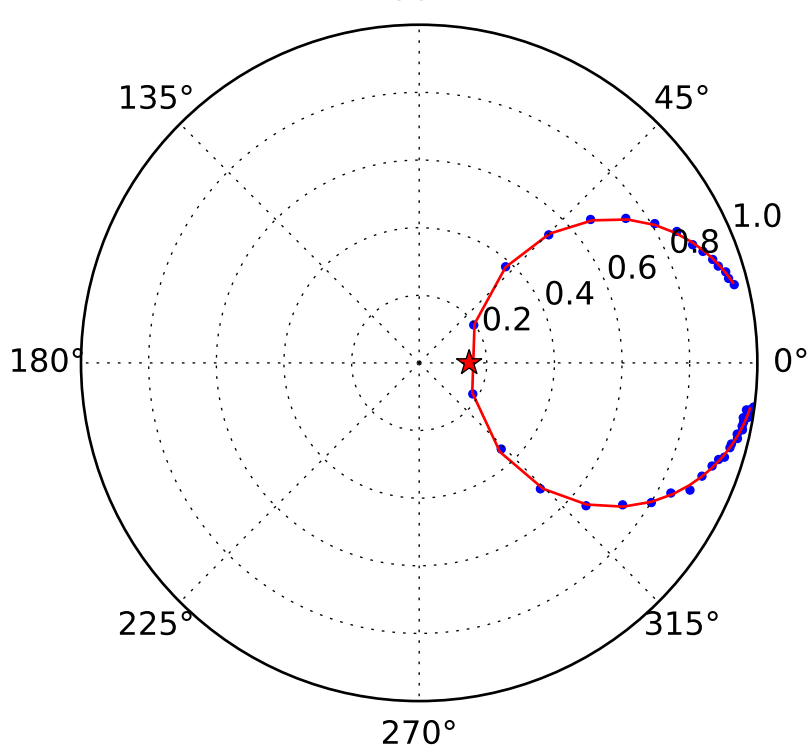
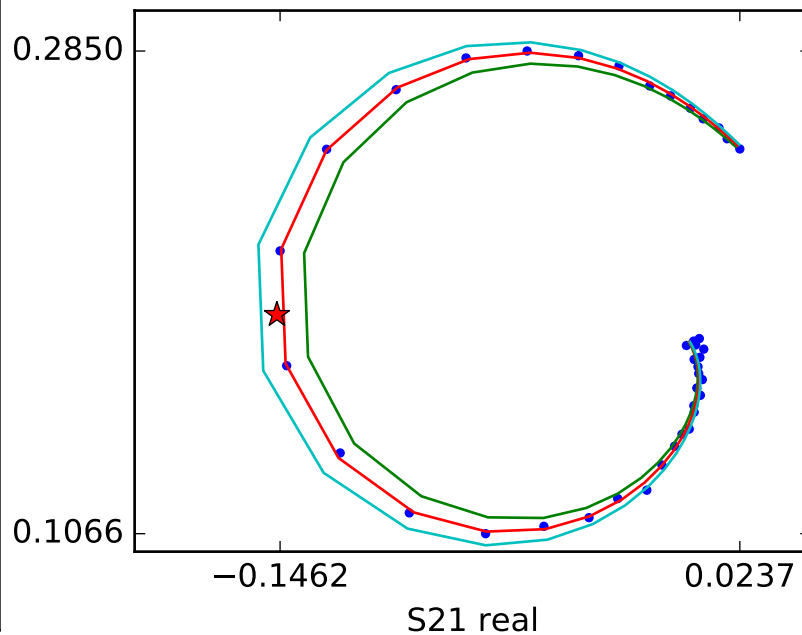
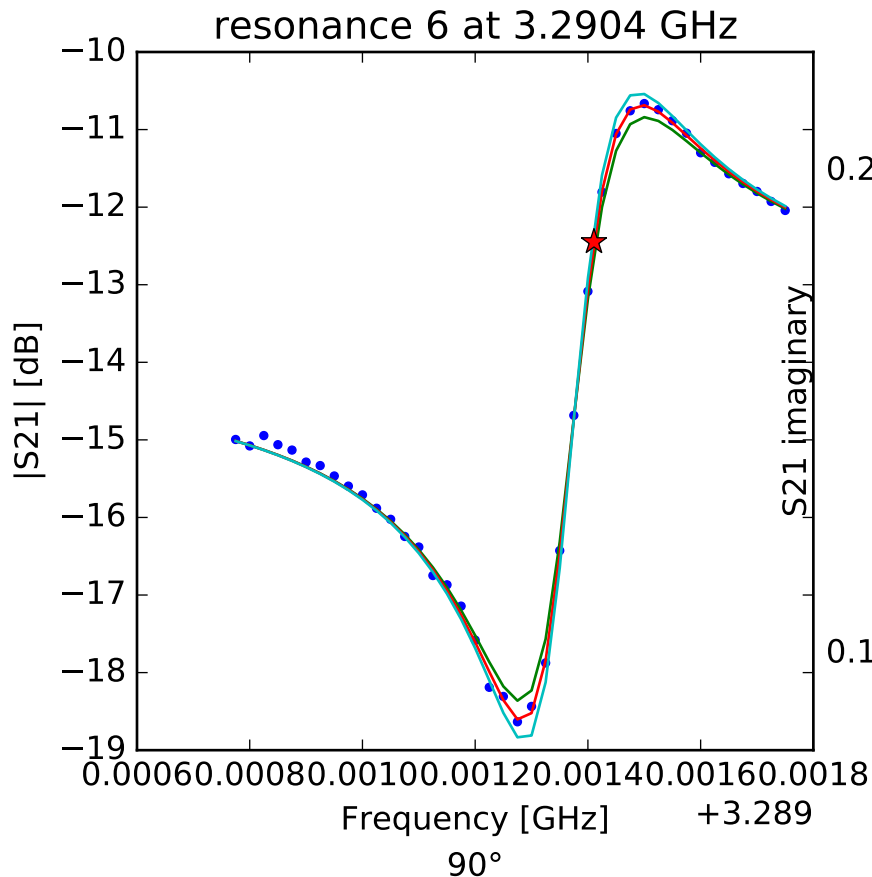
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

fr = 3.22344387019
 Qr = 16083.3784611
 Qc = 44540.5579169
 a = (-0.132784695252-0.252487913669j)
 phi = -0.00281089692741
 tau = 26.8545146646



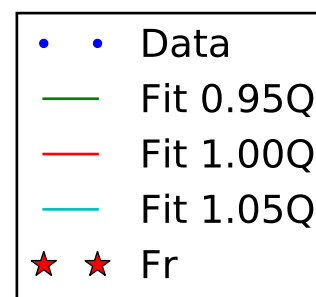
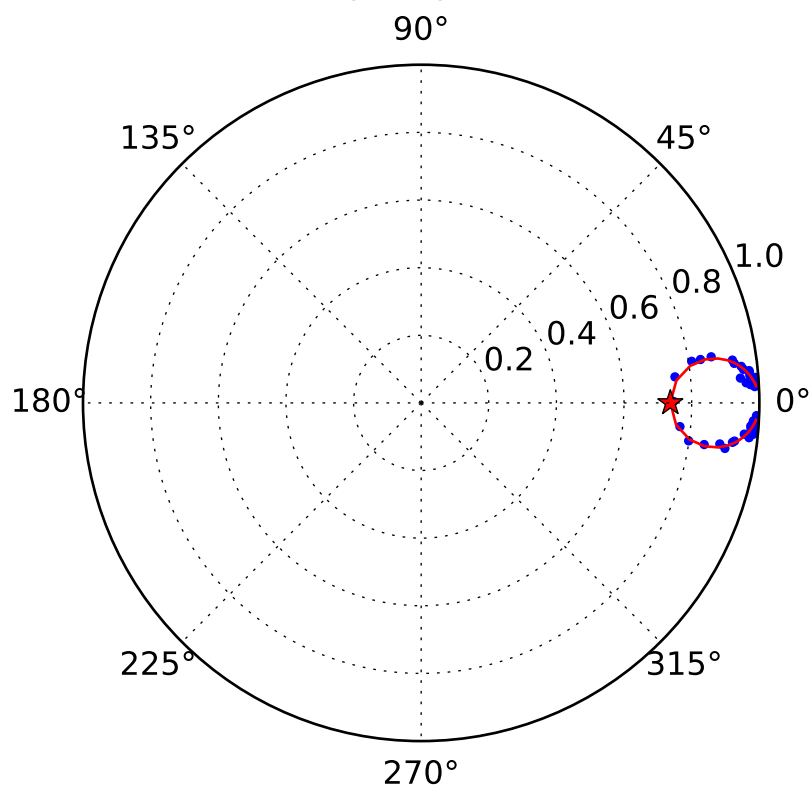
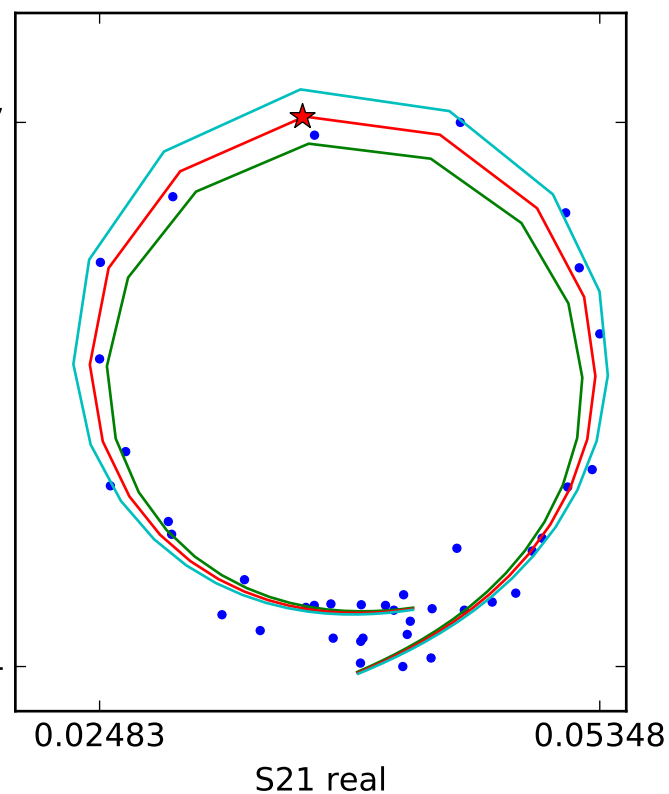
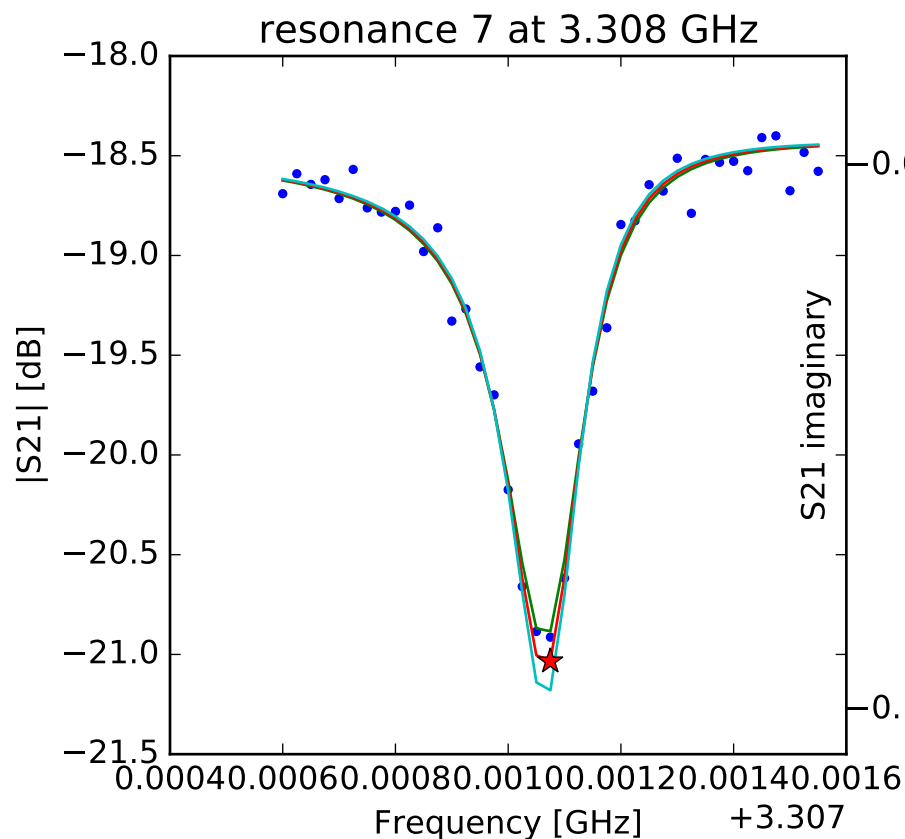
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.23815645982$
 $Q_r = 16258.088897$
 $Q_c = 42642.9156825$
 $a = (-0.291955756566 + 0.081933793431j)$
 $\phi = 0.860093793705$
 $\tau = 27.4116919089$



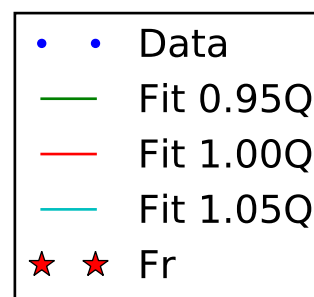
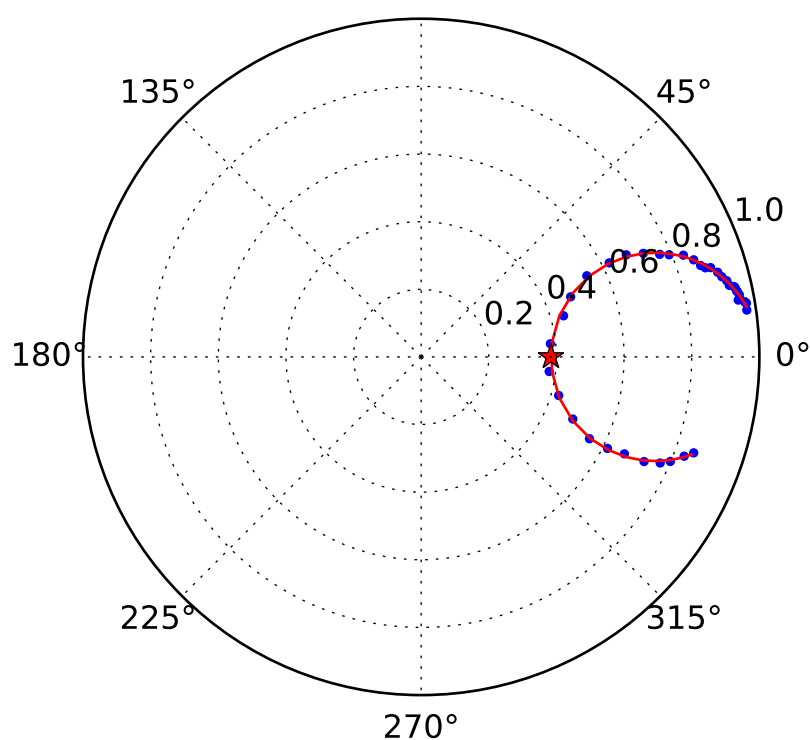
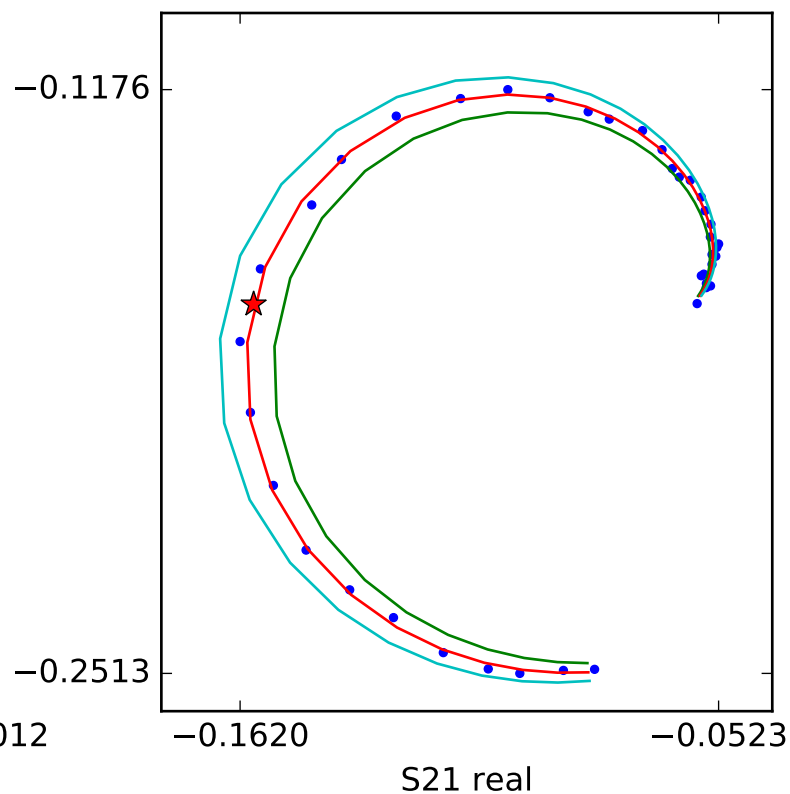
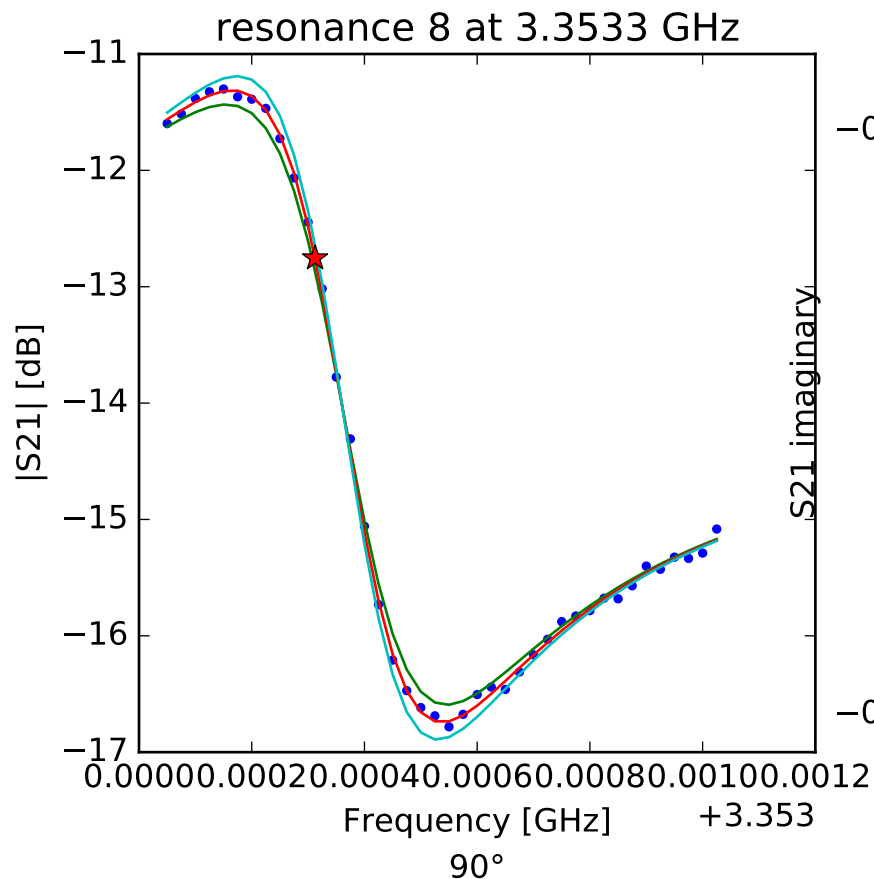
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.29041075743$
 $Q_r = 15925.5447952$
 $Q_c = 18687.1222595$
 $a = (-0.20231281167 - 0.0363821473367j)$
 $\phi = -1.3463969545$
 $\tau = 28.3549083351$



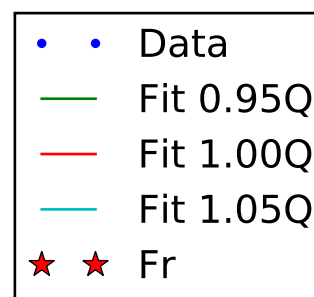
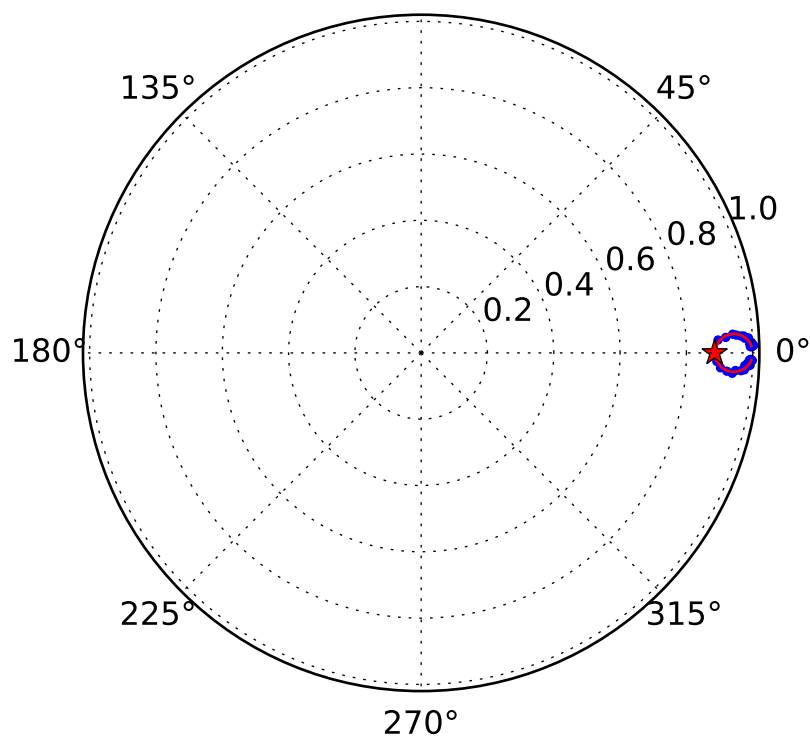
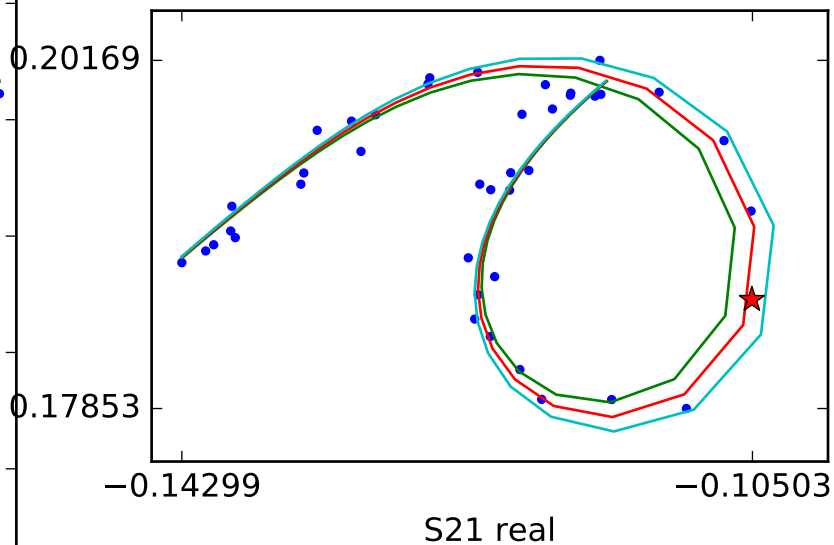
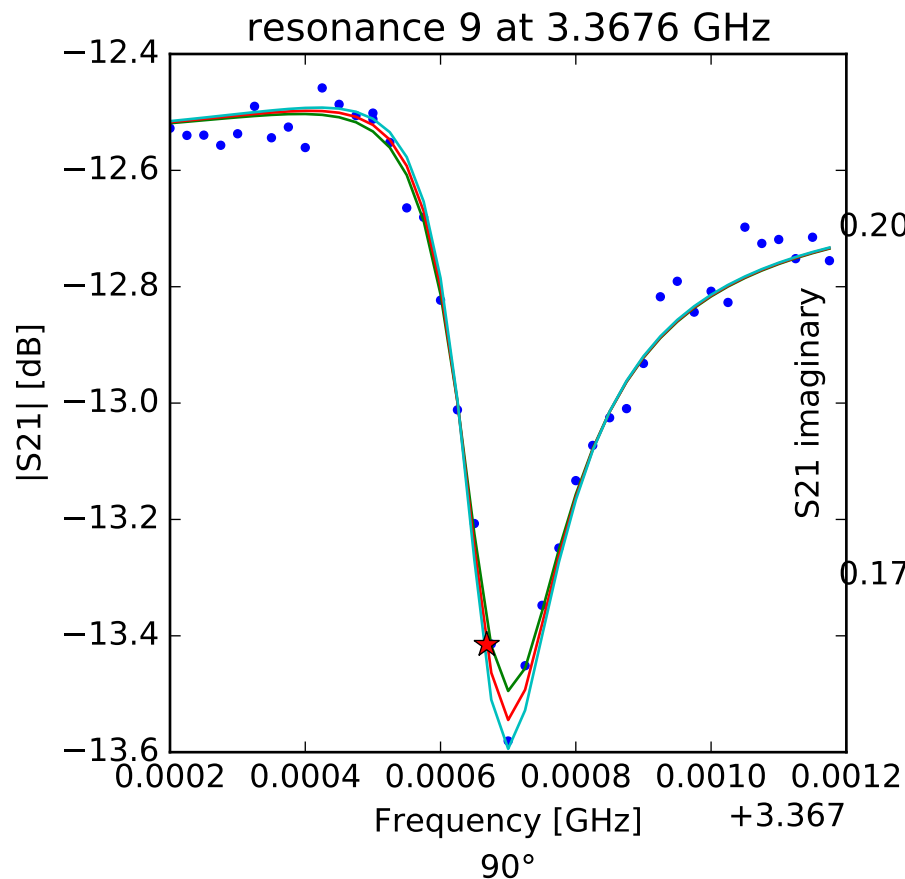
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.30807463428$
 $Q_r = 17635.5283739$
 $Q_c = 66990.229855$
 $a = (-0.116383140755 - 0.0266820369589j)$
 $\phi = -0.195568389766$
 $\tau = 22.5900233254$



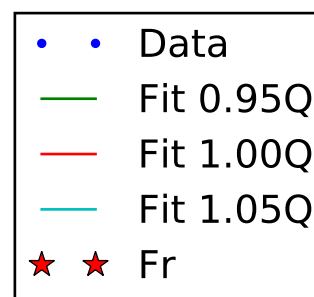
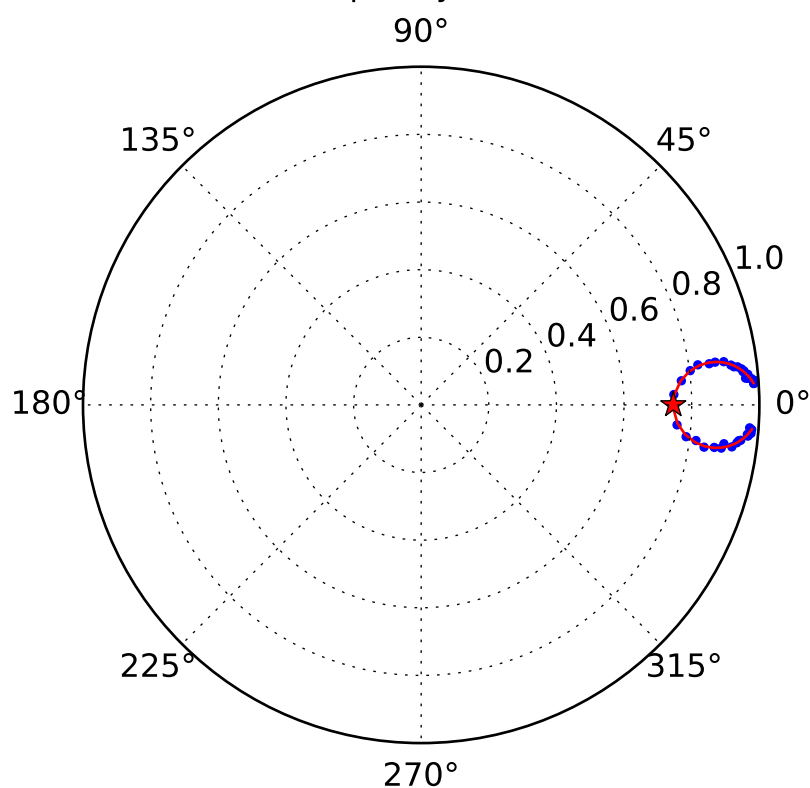
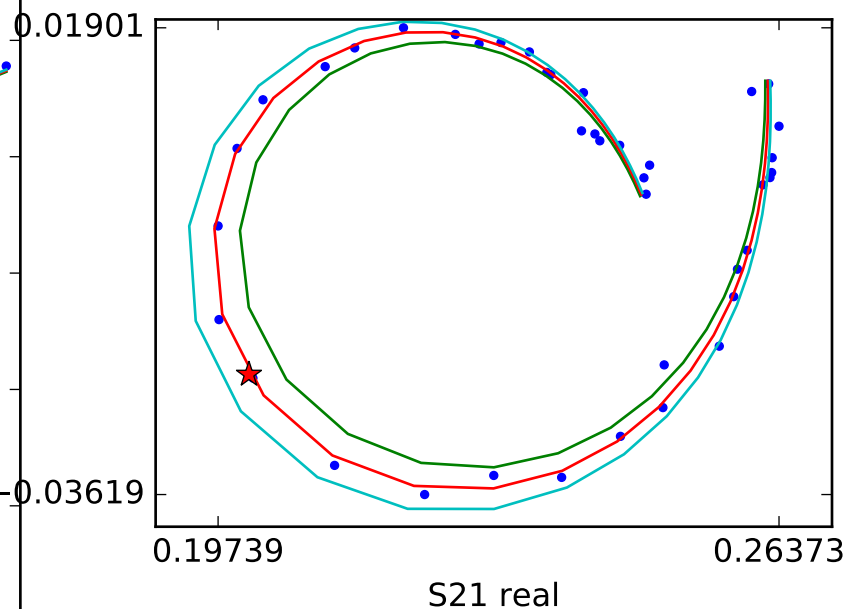
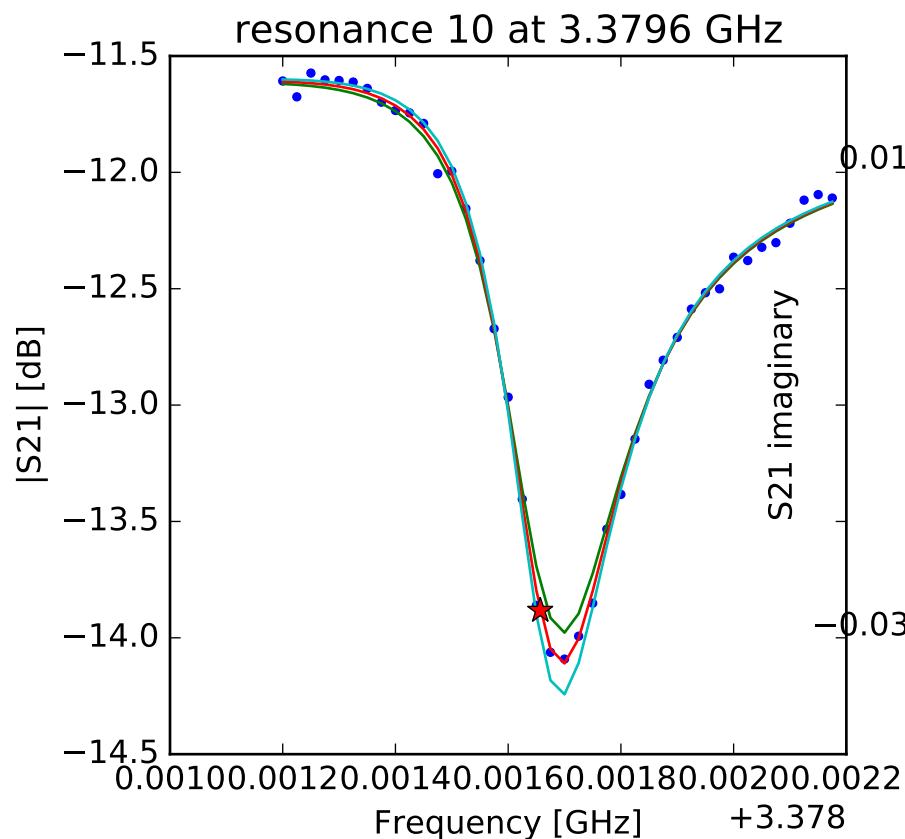
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.35331242637$
 $Q_r = 9209.73157071$
 $Q_c = 14941.7509624$
 $a = (-0.0618927874901 - 0.195532918328j)$
 $\phi = 1.47411600175$
 $\tau = 26.8332781026$



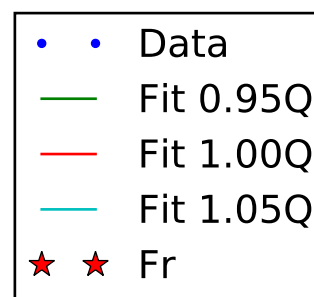
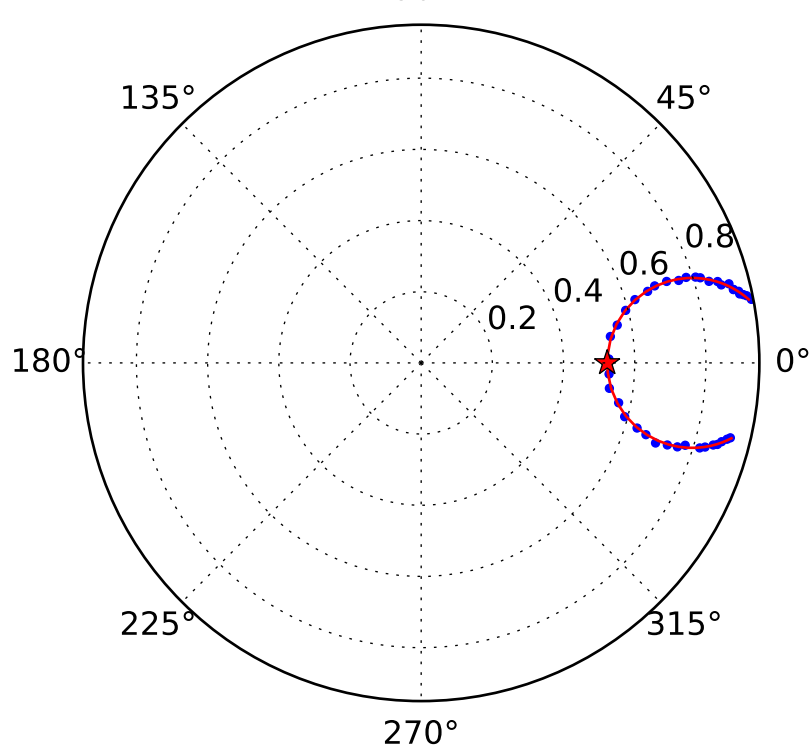
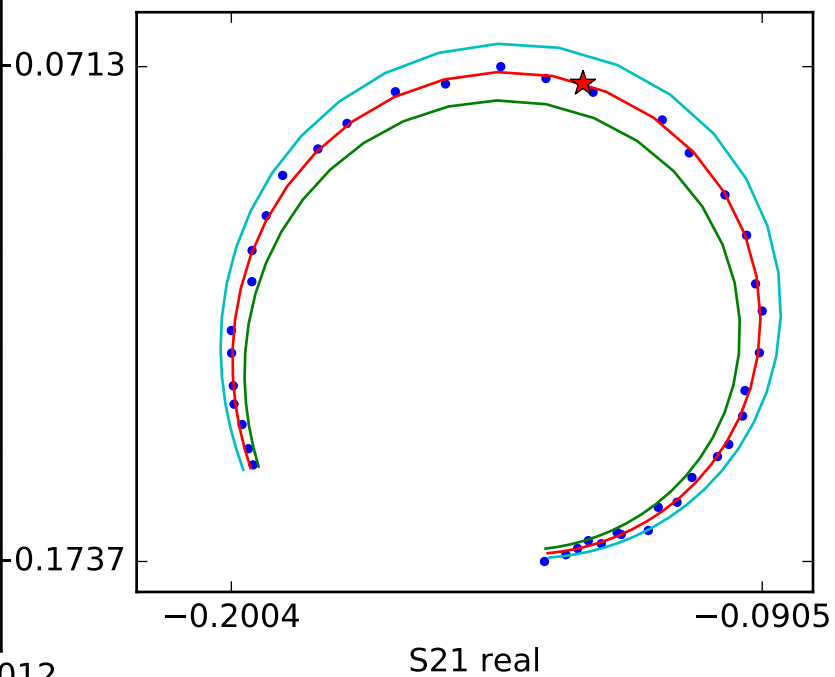
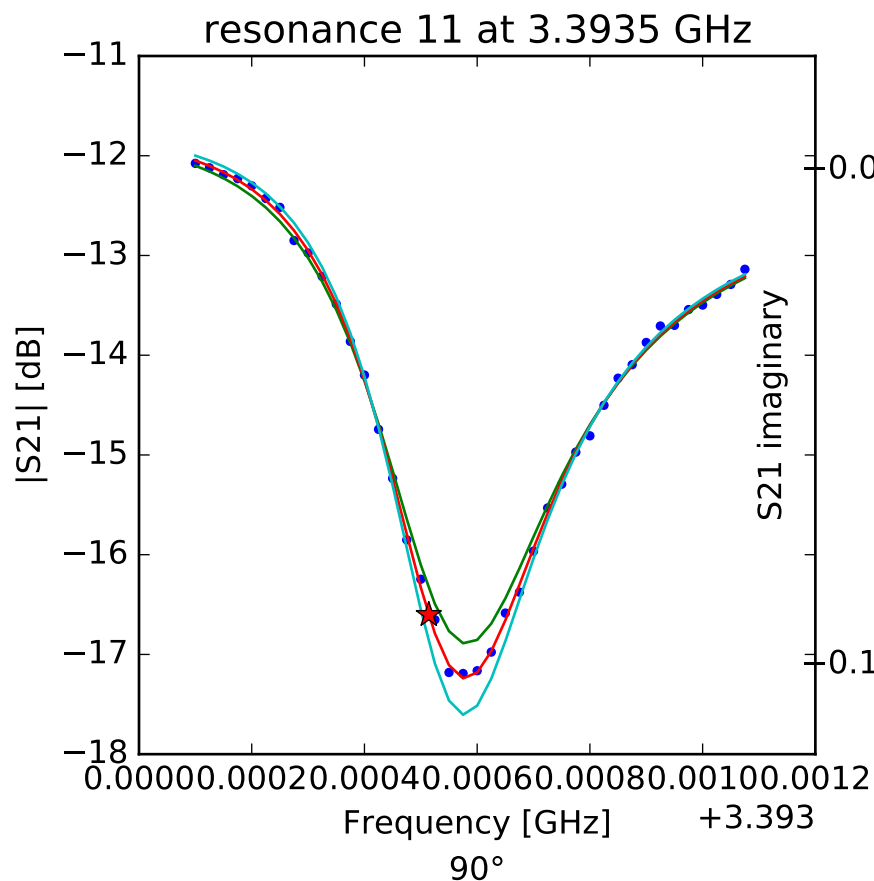
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.36766822755$
 $Q_r = 18246.6341595$
 $Q_c = 158739.213336$
 $a = (-0.109316866 - 0.207307282826j)$
 $\phi = 0.643417450619$
 $\tau = 26.5254116452$



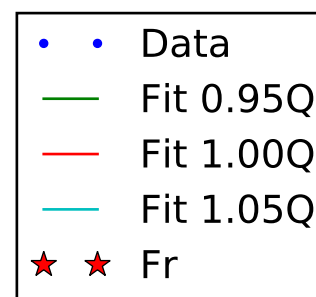
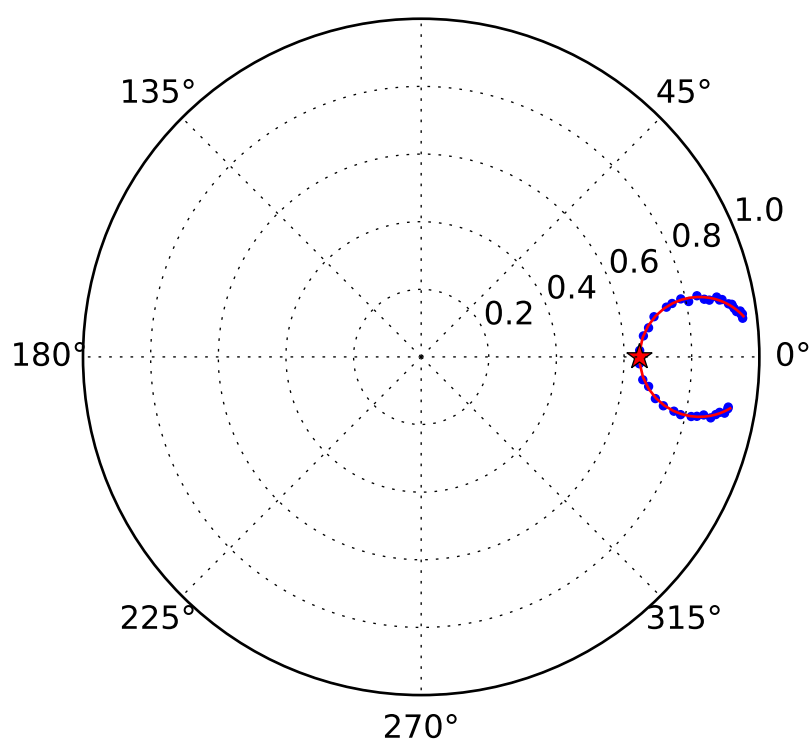
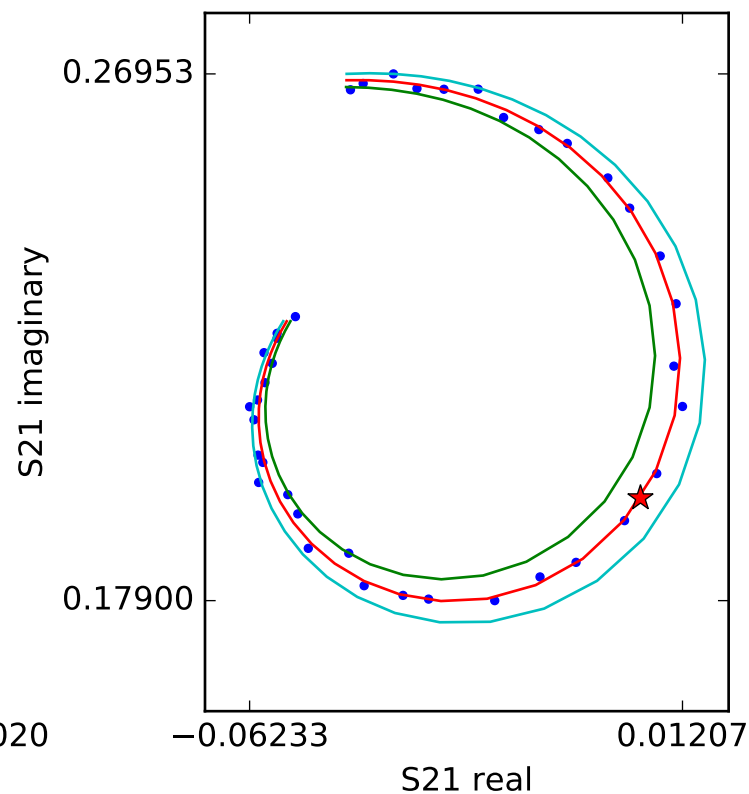
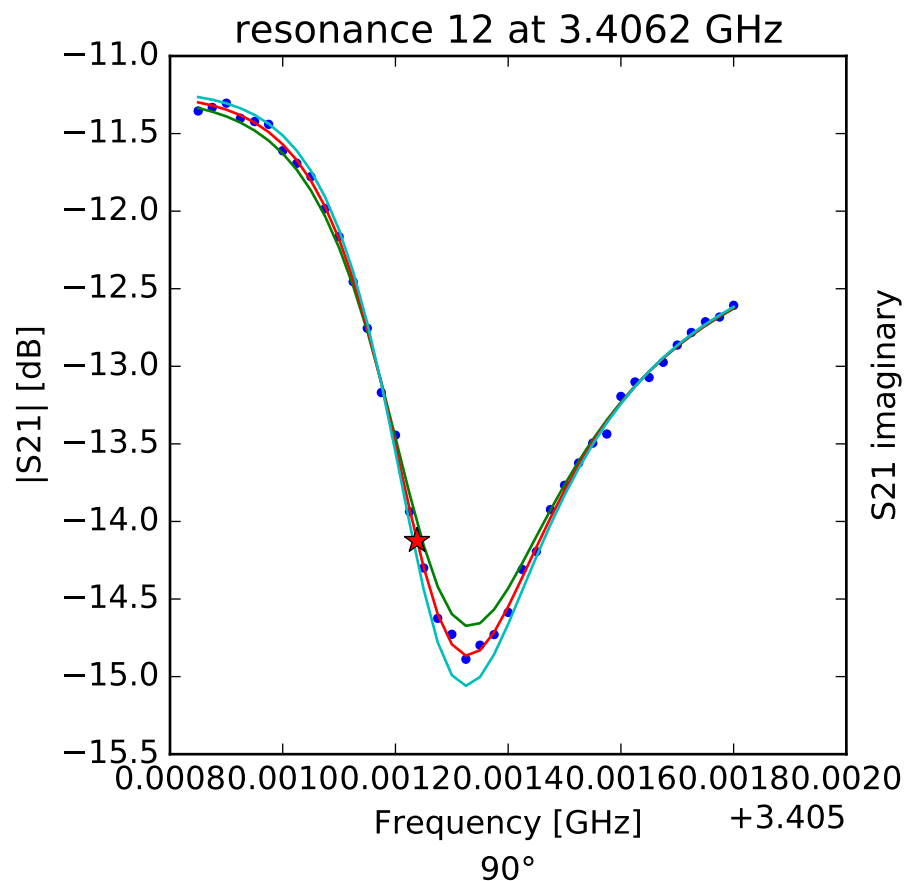
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.37965691338$
 $Q_r = 11960.0409755$
 $Q_c = 47005.4646113$
 $a = (-0.00606761392003 + 0.258665247294j)$
 $\phi = 0.469637404246$
 $\tau = 28.7743811455$



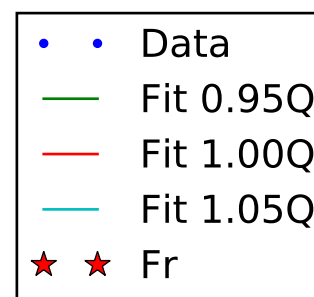
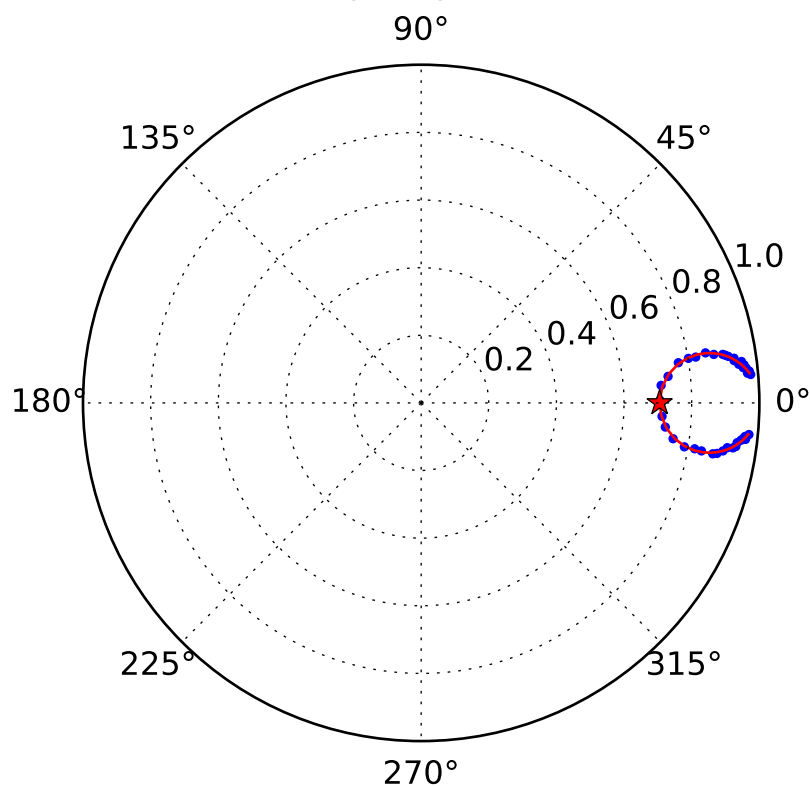
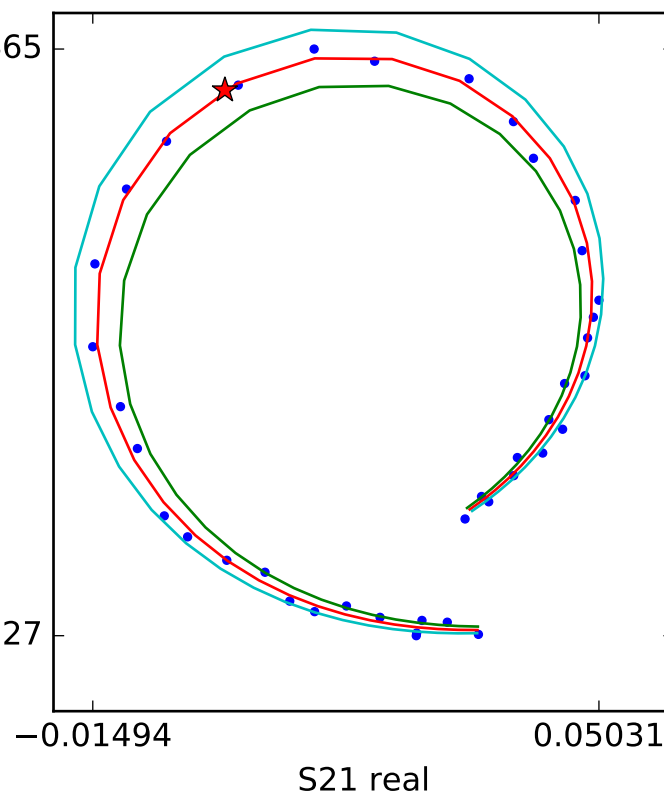
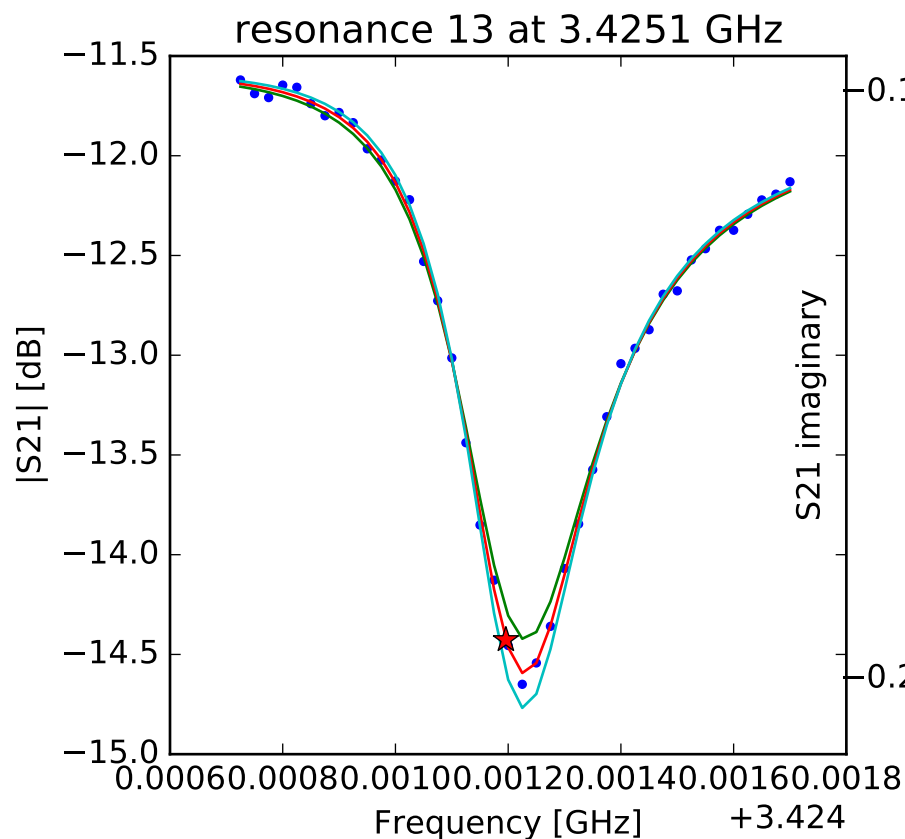
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

fr = 3.39351407743
 Qr = 6754.47276358
 Qc = 14145.816523
 a = (0.0934258394315-0.233629296034j)
 phi = 0.391831476791
 tau = 26.8677286601



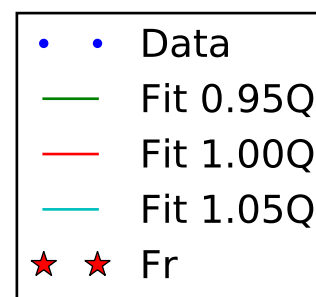
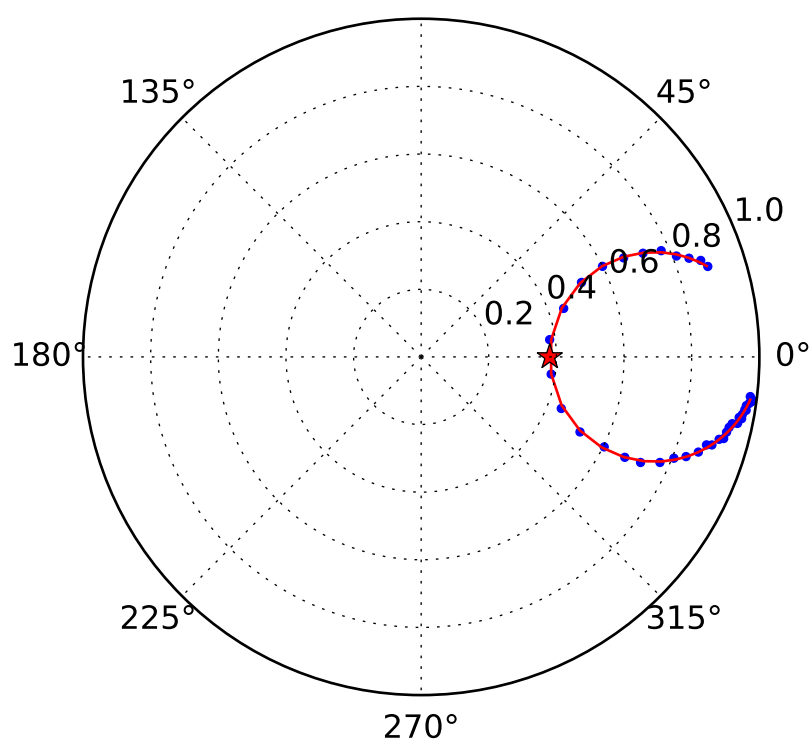
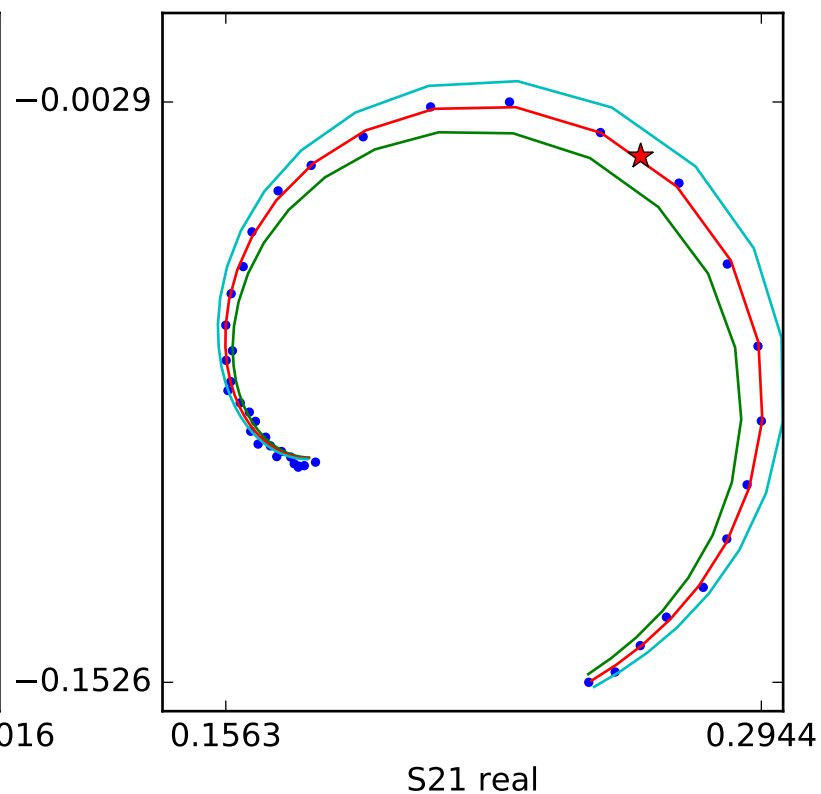
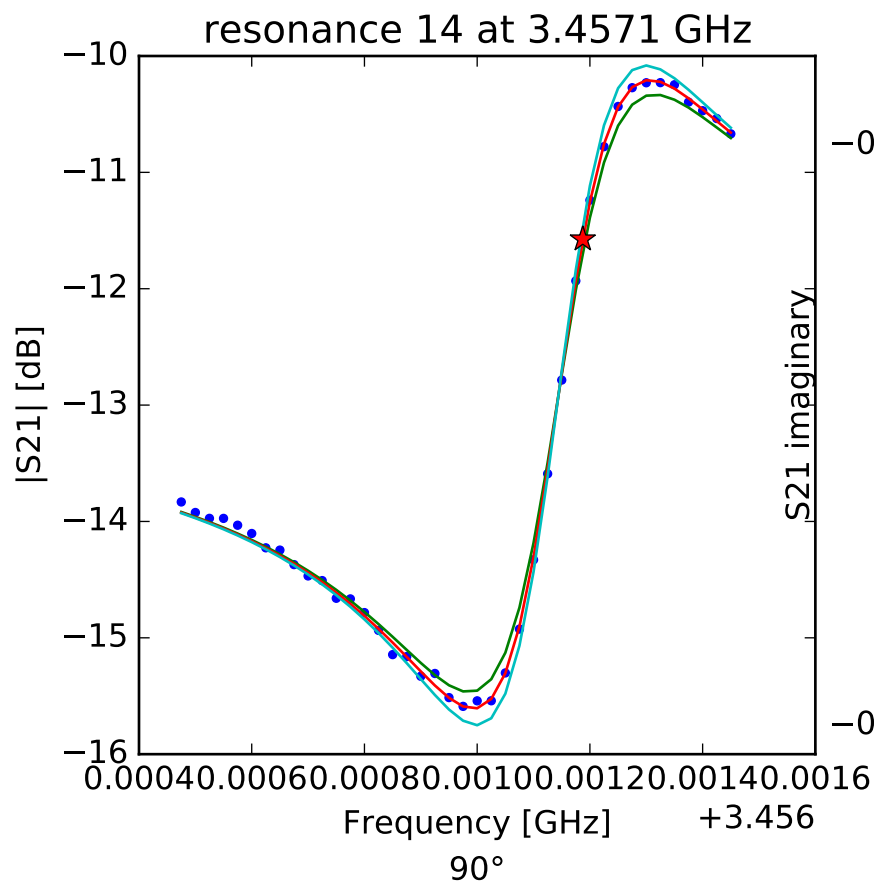
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f - f_r}{f_r} \right)} \right]$$

$f_r = 3.40623823135$
 $Q_r = 7732.31080742$
 $Q_c = 21810.3730731$
 $a = (0.240889154429 + 0.103526978756j)$
 $\phi = 0.653714009989$
 $\tau = 28.41026483$



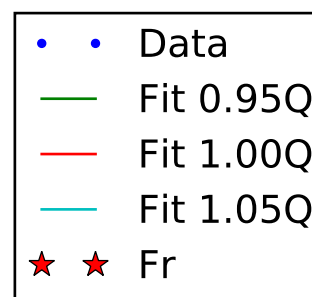
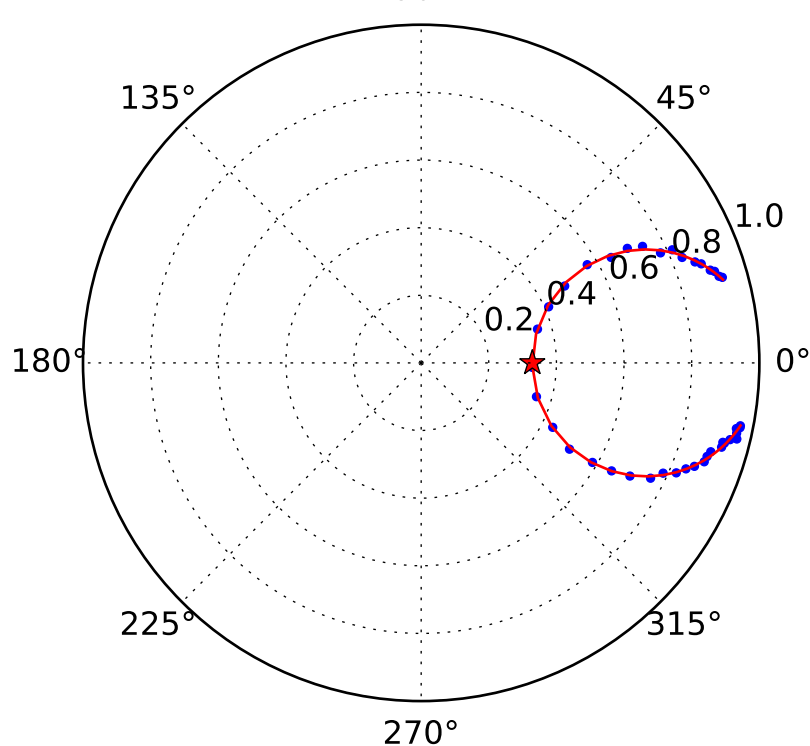
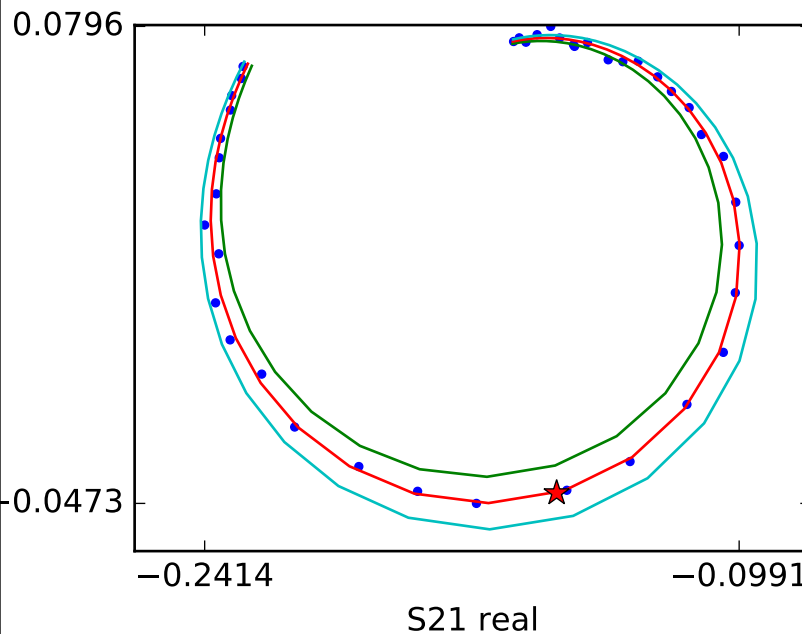
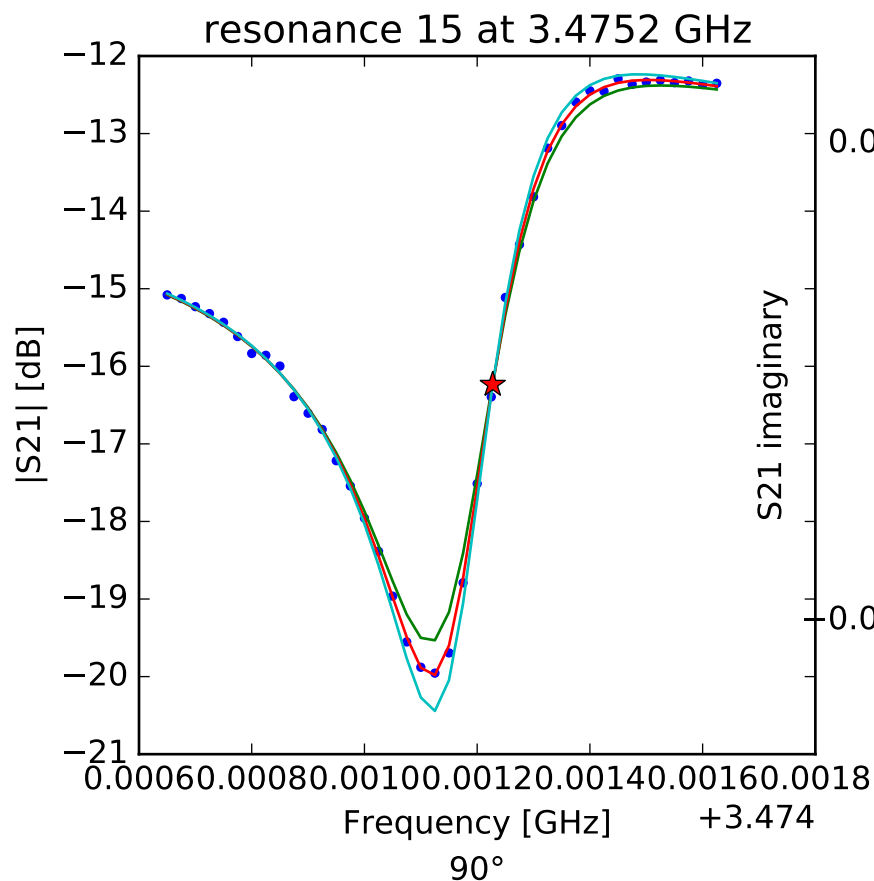
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.42519590103$
 $Q_r = 10266.9088211$
 $Q_c = 34809.4973852$
 $a = (-0.161887442959 + 0.20404109035j)$
 $\phi = 0.345107470772$
 $\tau = 27.9058930085$



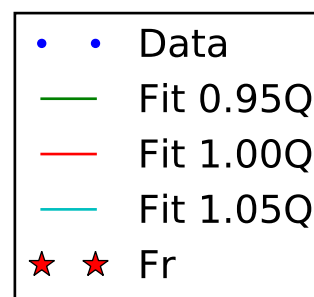
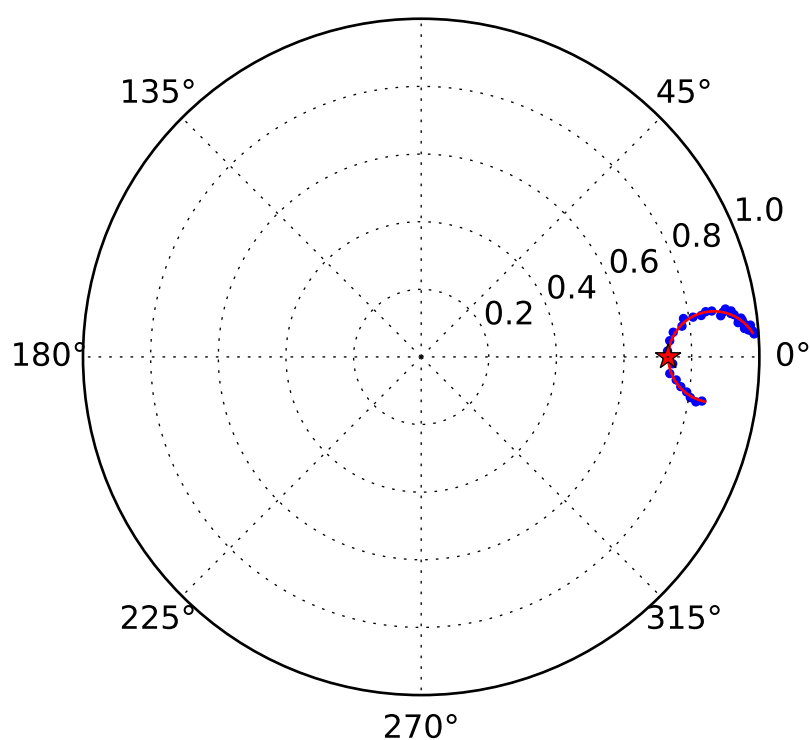
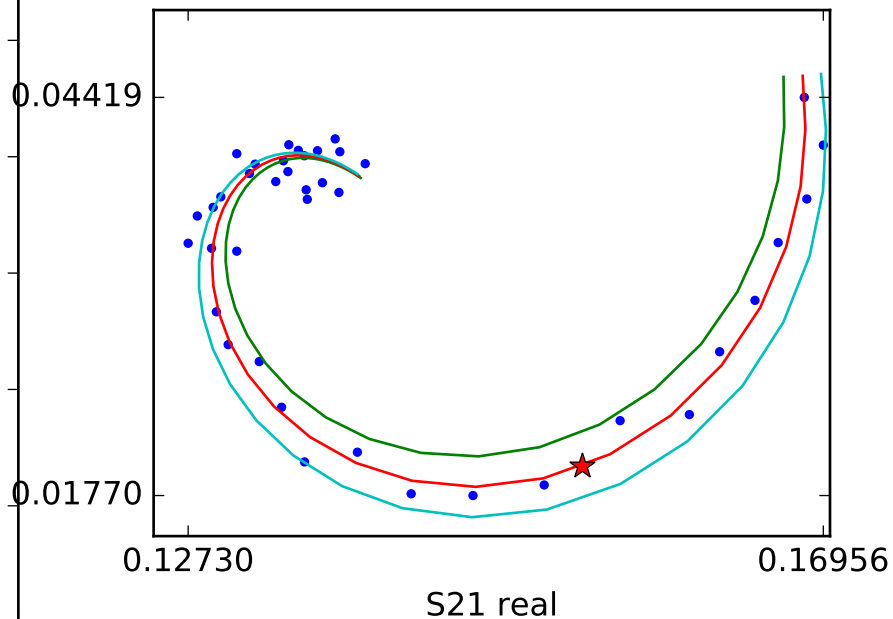
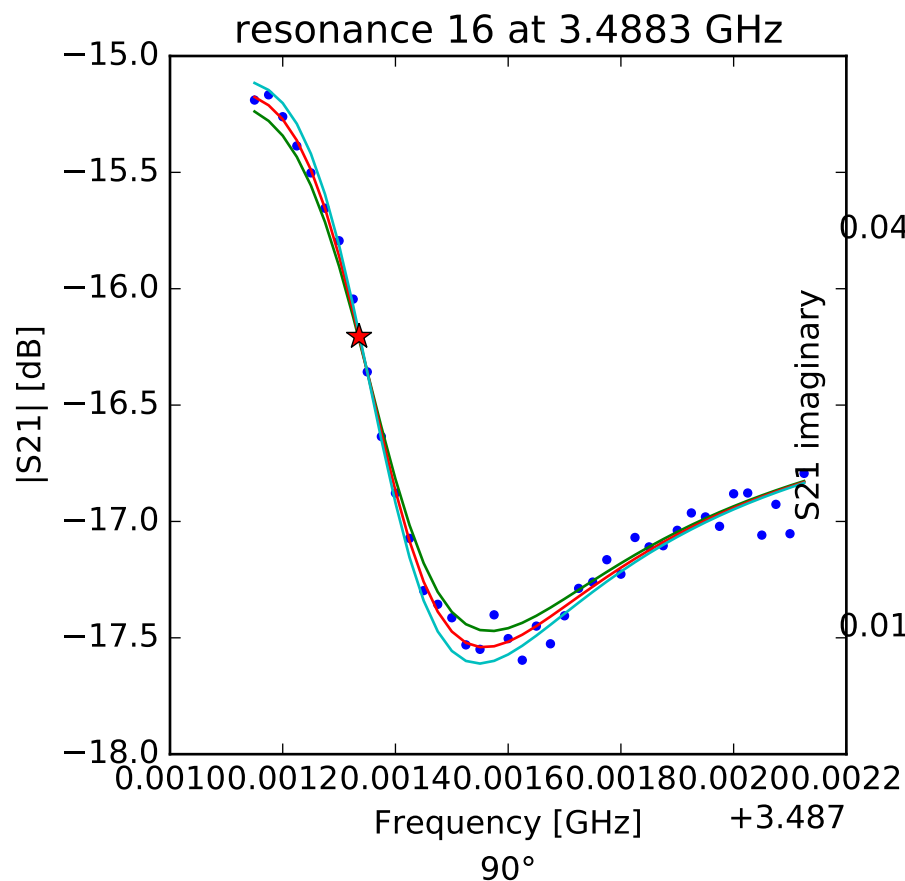
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f - f_r}{f_r} \right)} \right]$$

$f_r = 3.45718735894$
 $Q_r = 11364.6518551$
 $Q_c = 18335.086935$
 $a = (-0.132493353828 + 0.188947278791j)$
 $\phi = -1.50841052542$
 $\tau = 27.6087303871$



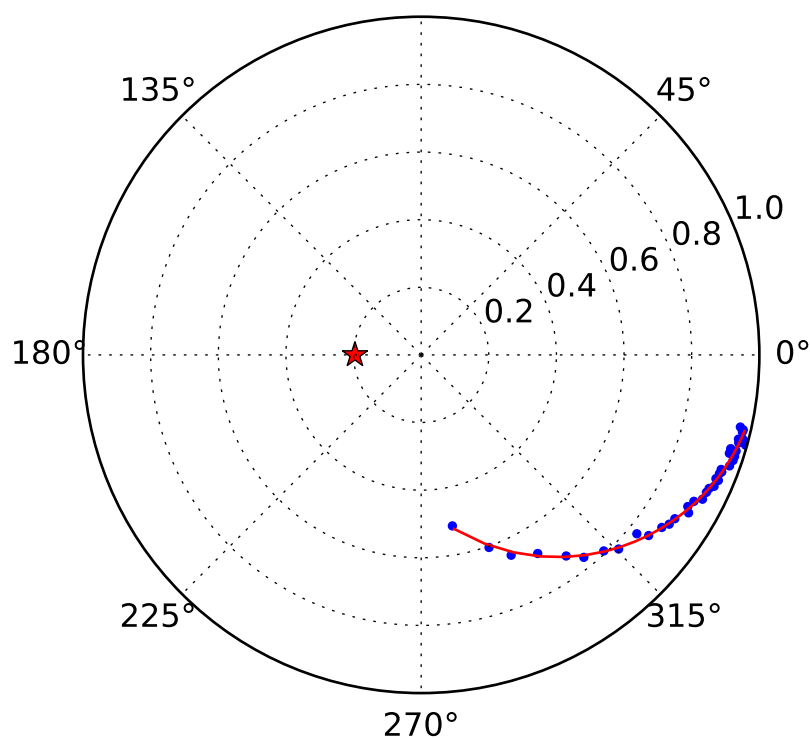
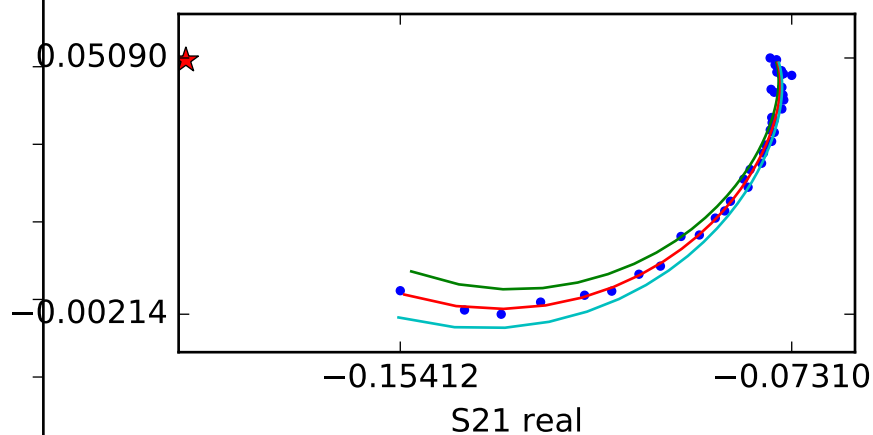
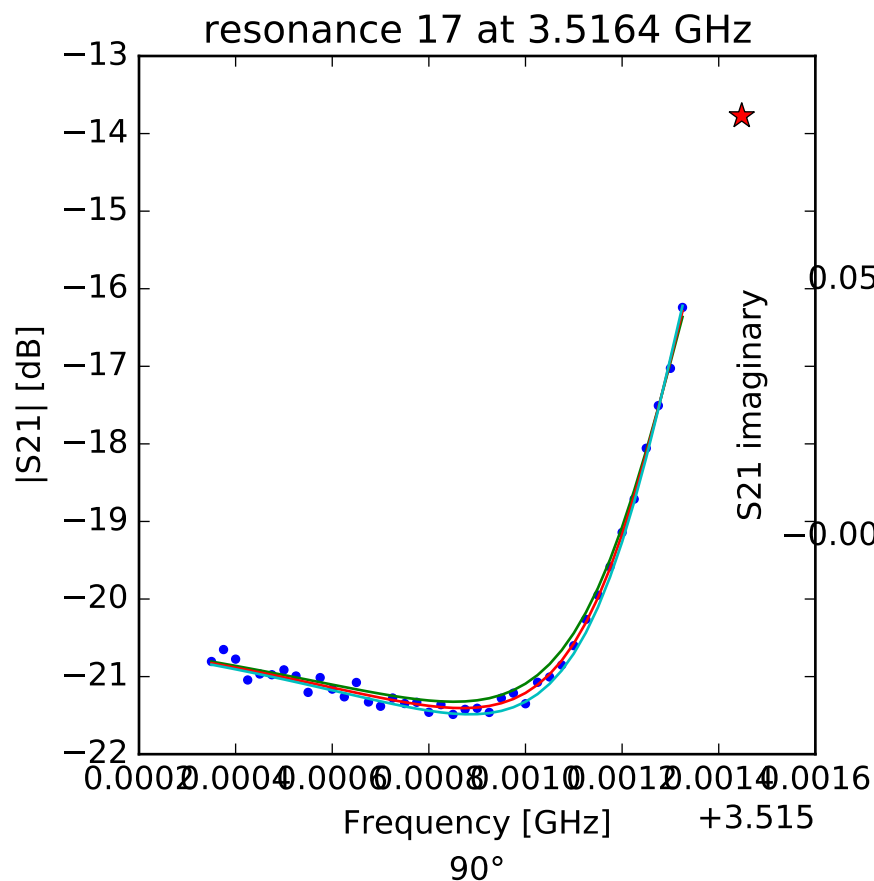
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.4752275489$
 $Q_r = 10004.2661726$
 $Q_c = 14902.2350364$
 $a = (0.130774224422 + 0.166974121382j)$
 $\phi = -0.814202387089$
 $\tau = 28.6930147723$



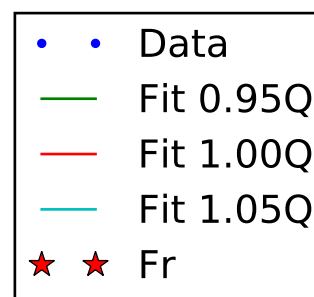
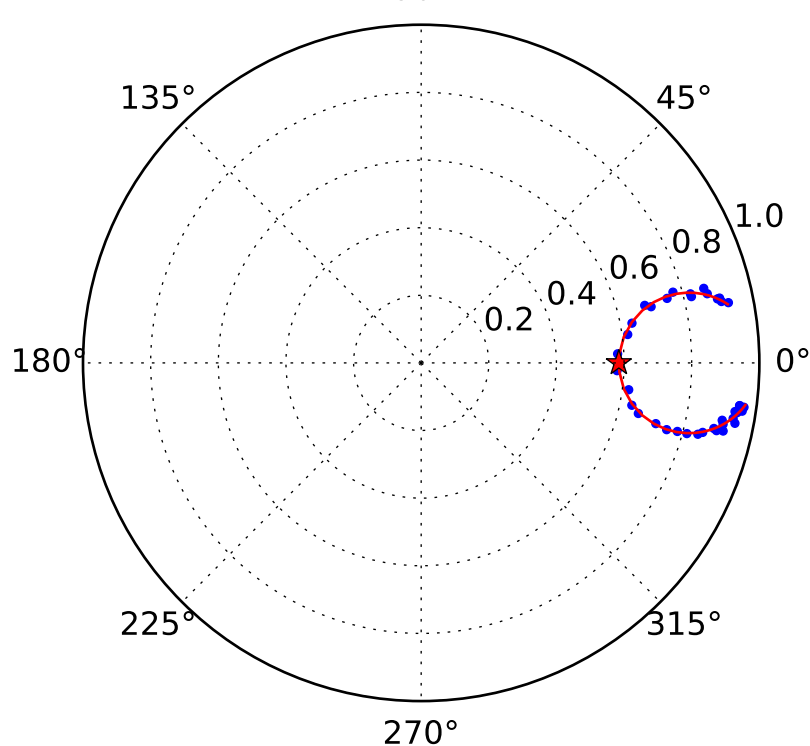
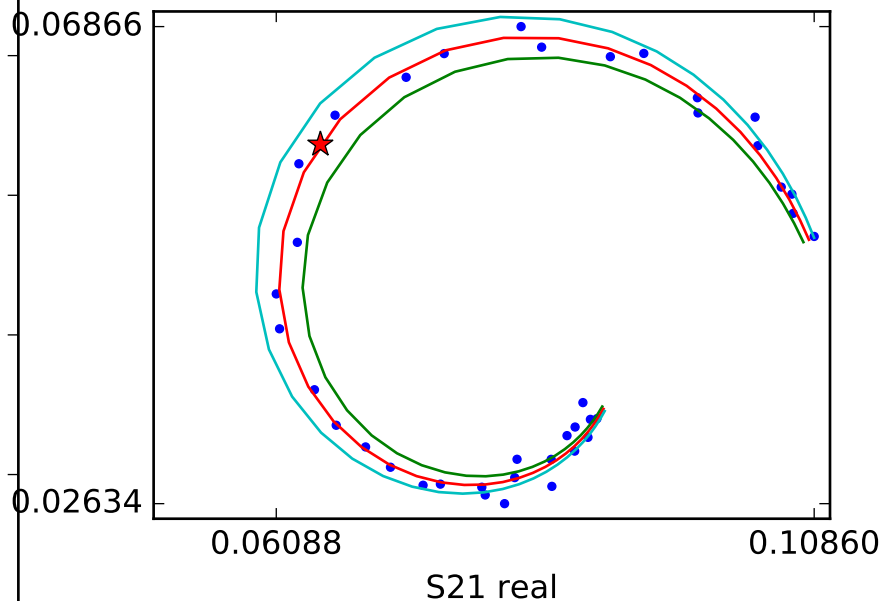
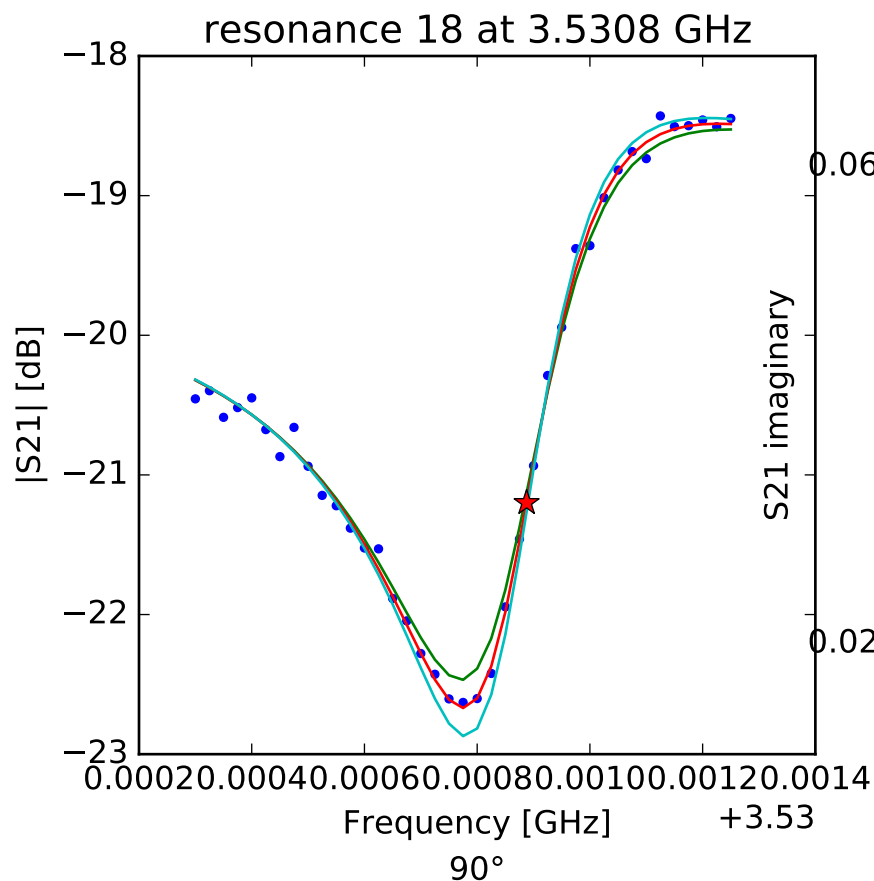
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.48833550658$
 $Q_r = 7730.94579213$
 $Q_c = 28653.8193697$
 $a = (-0.153574400152 - 0.0241231755573j)$
 $\phi = 1.41926688144$
 $\tau = 23.0658371957$



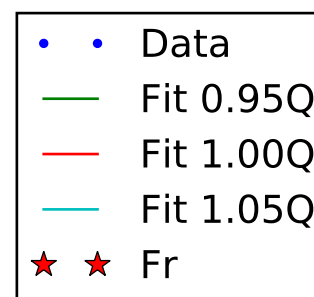
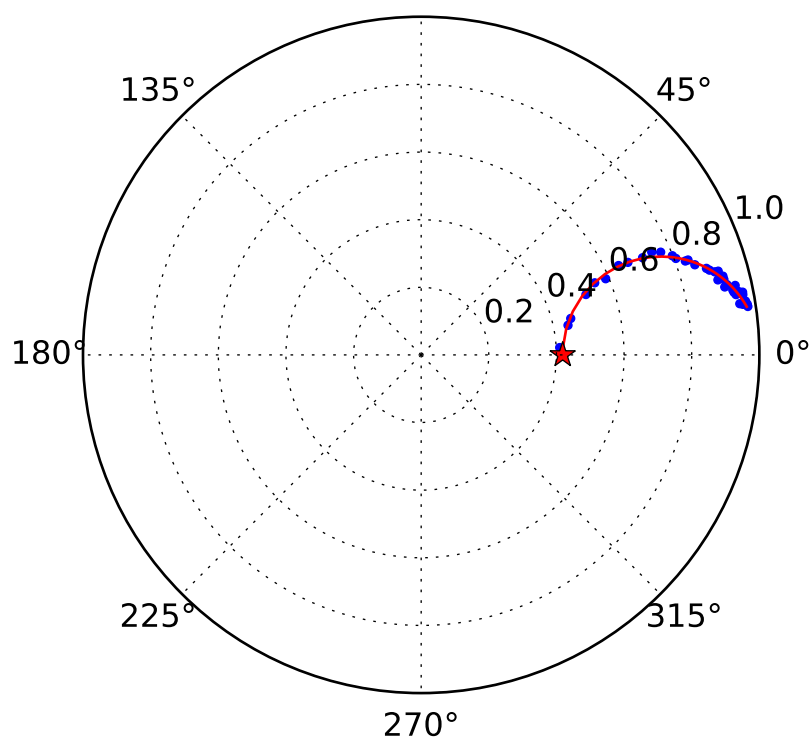
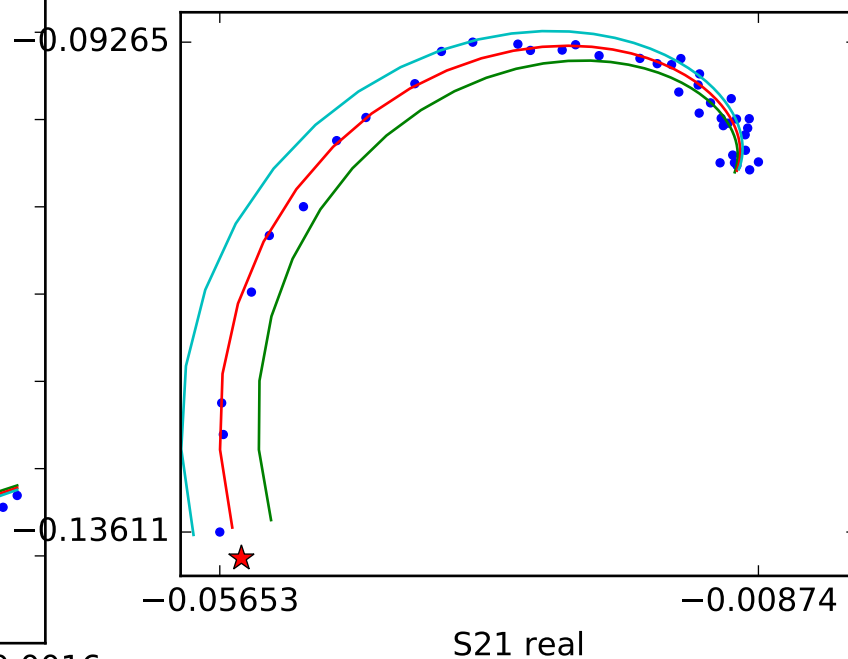
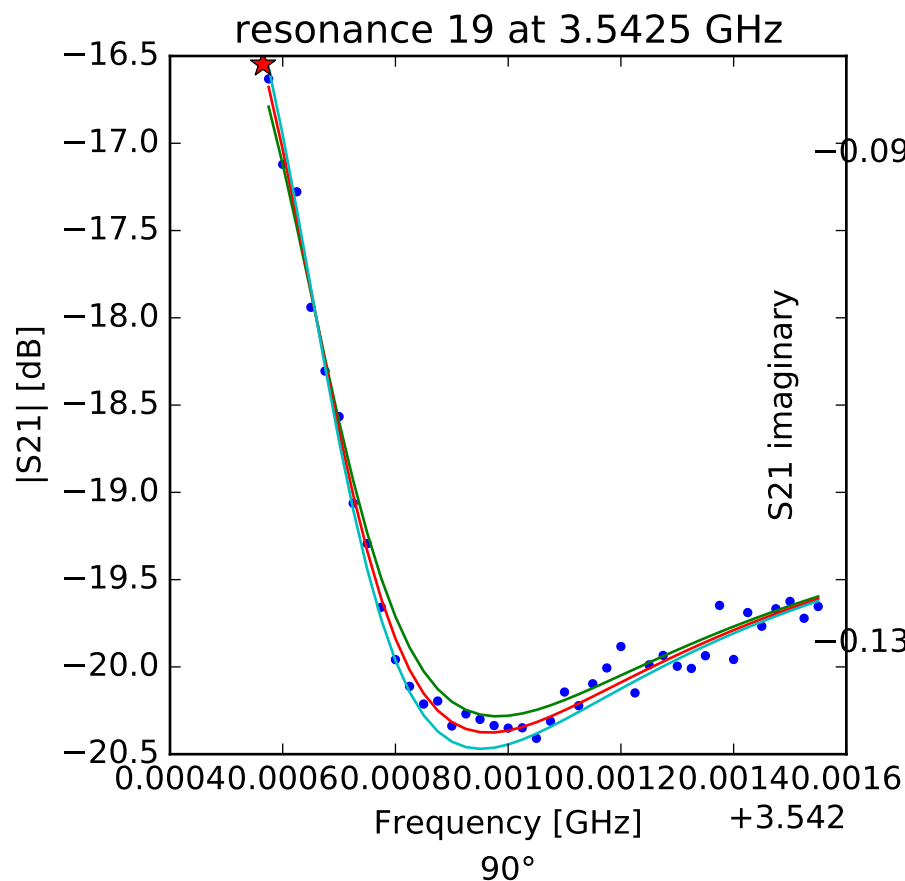
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.51644760629$
 $Q_r = 8180.08537967$
 $Q_c = 6840.3702449$
 $a = (-0.0252083653154 - 0.106728333851j)$
 $\phi = -2.02898416646$
 $\tau = 16.0247086338$



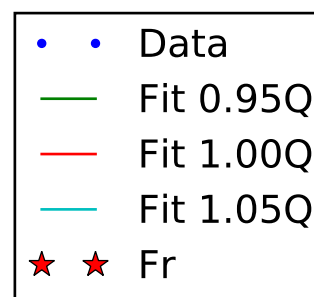
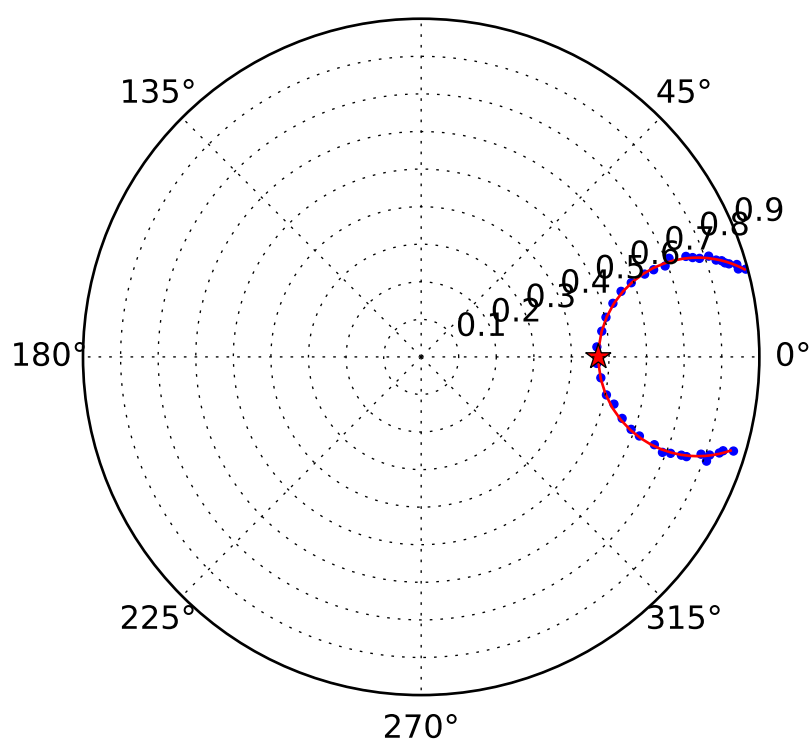
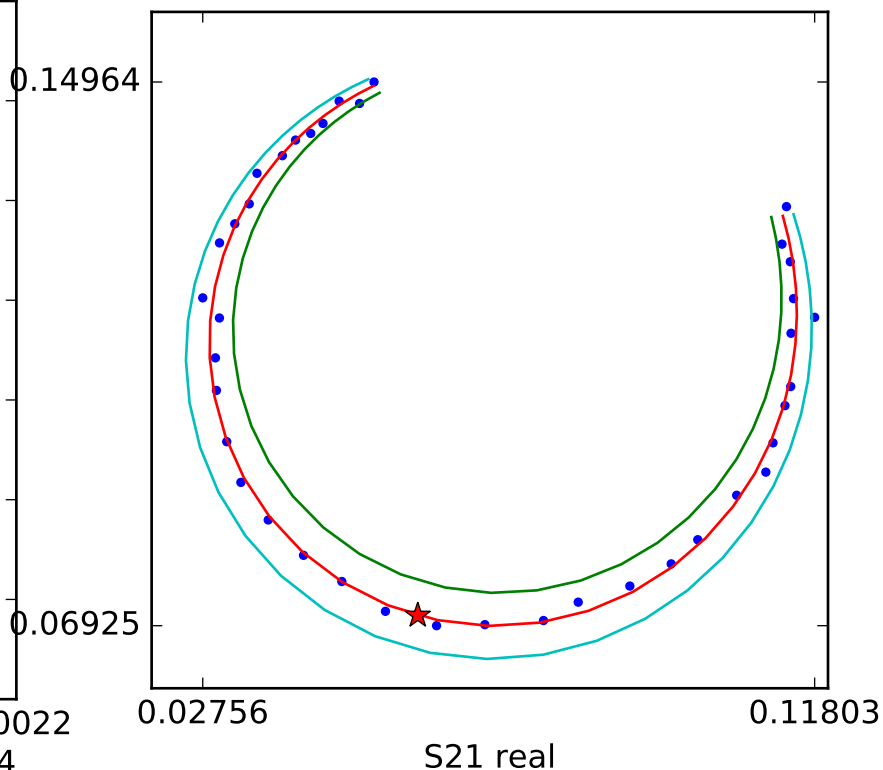
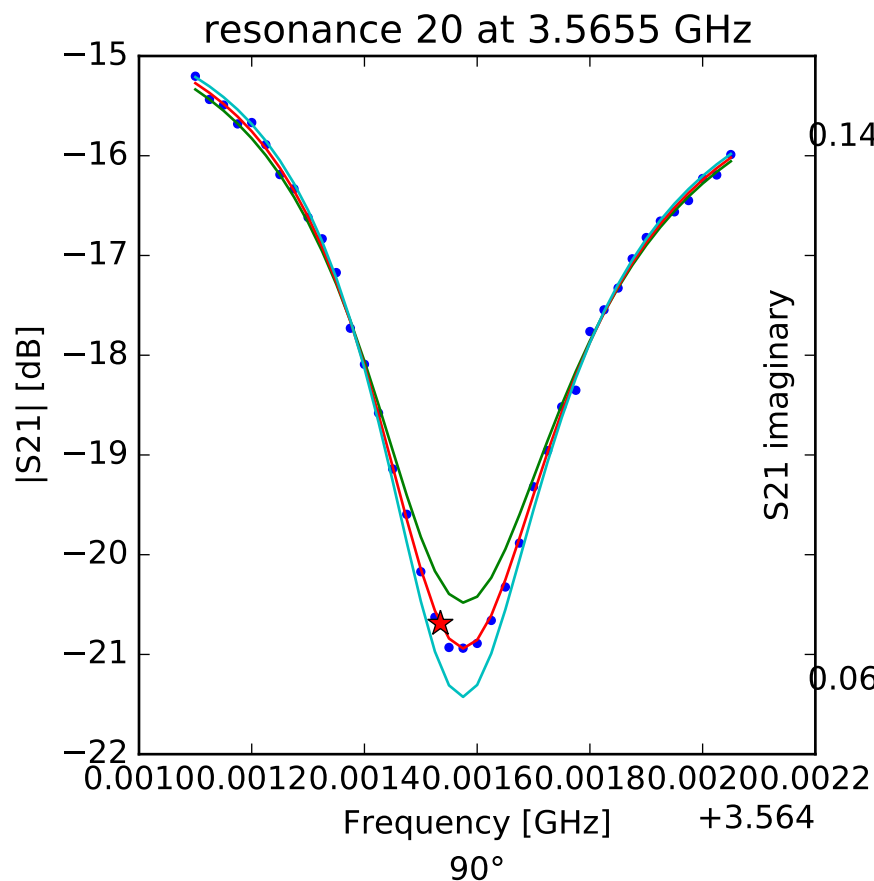
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.53088767487$
 $Q_r = 9040.49735186$
 $Q_c = 21756.143587$
 $a = (0.0950816256745 - 0.0543581466045j)$
 $\phi = -0.863206837871$
 $\tau = 27.4338479142$



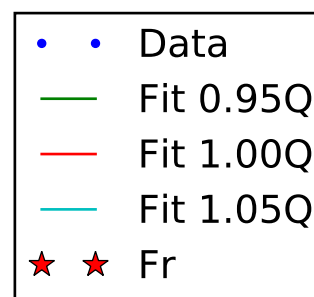
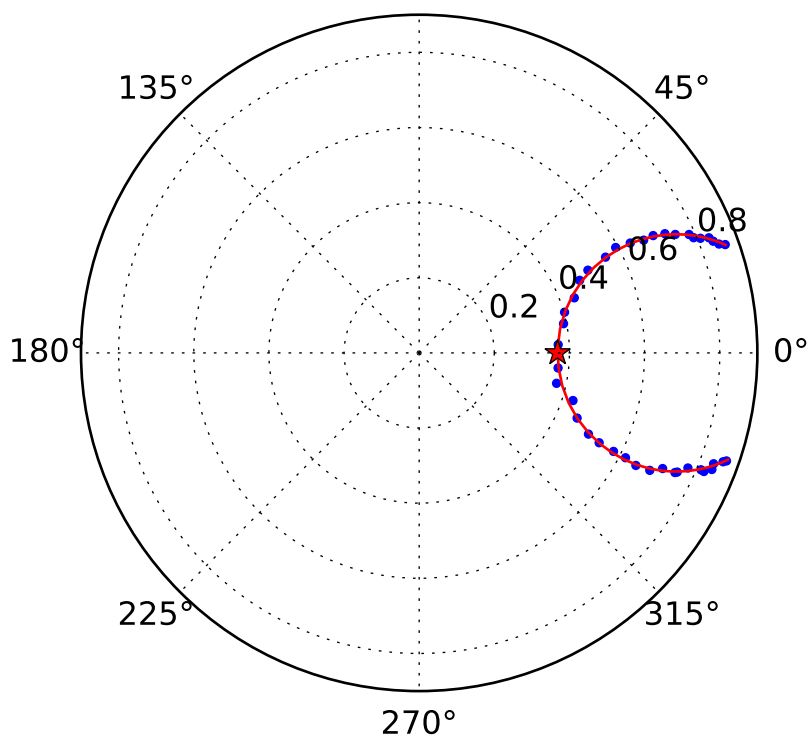
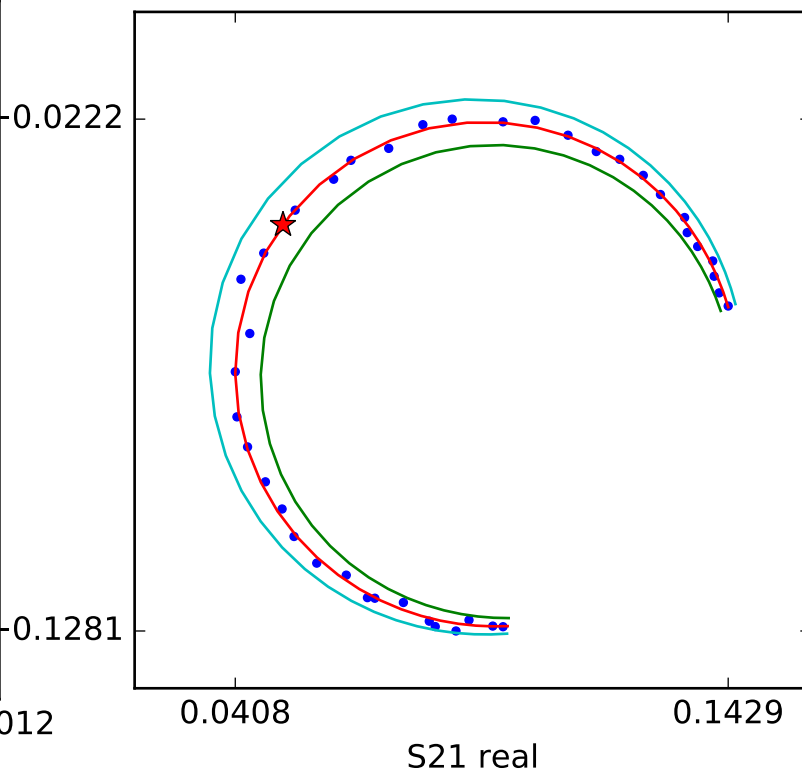
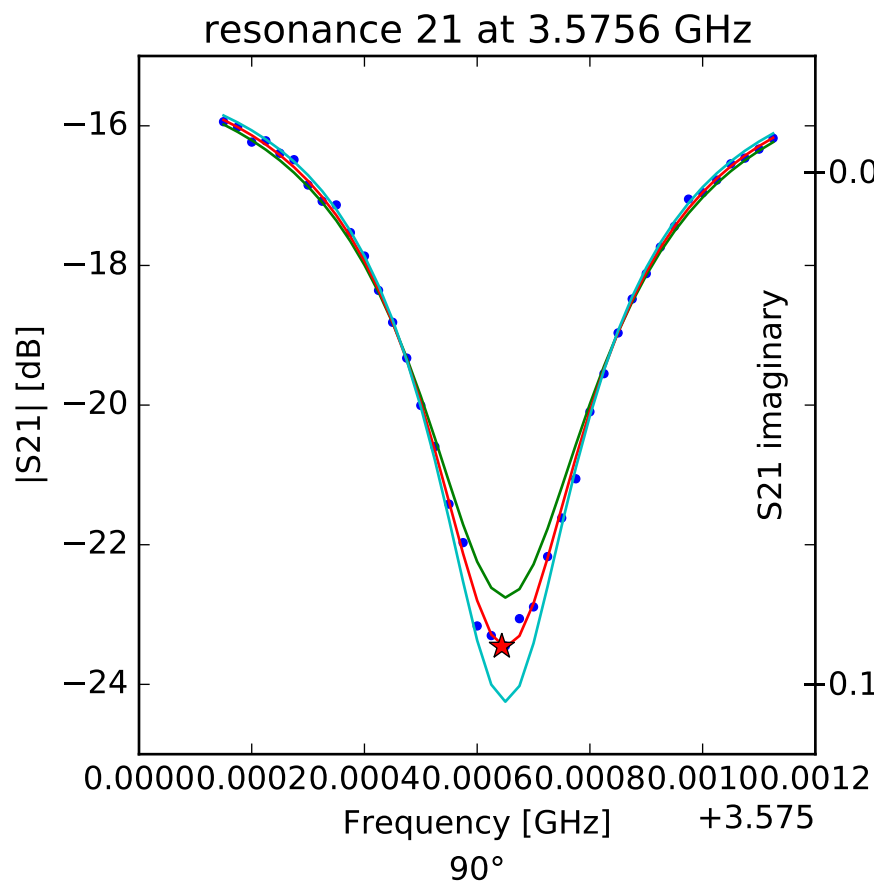
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.54256503479$
 $Q_r = 6870.74505737$
 $Q_c = 11814.4682032$
 $a = (0.10642618081 - 0.0567199730323j)$
 $\phi = 1.73001391613$
 $\tau = 22.9084961536$



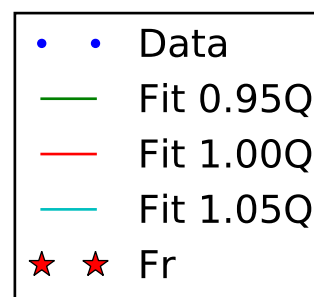
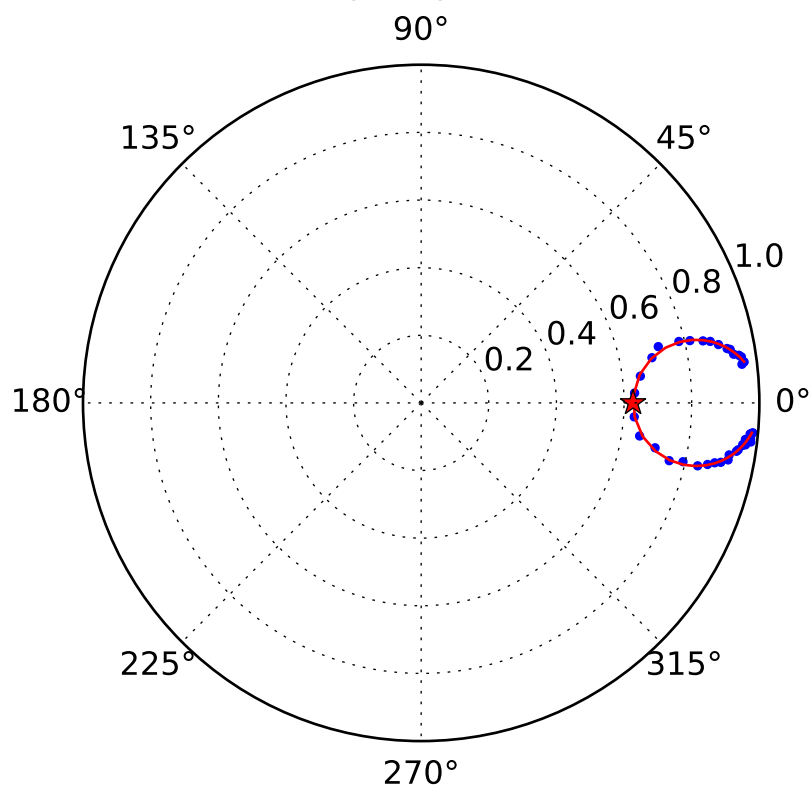
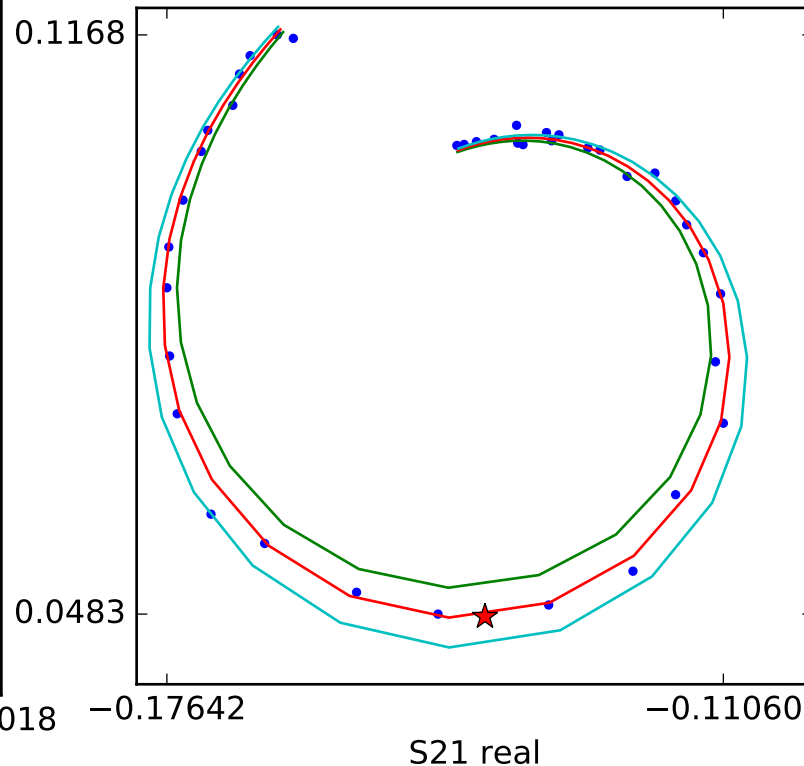
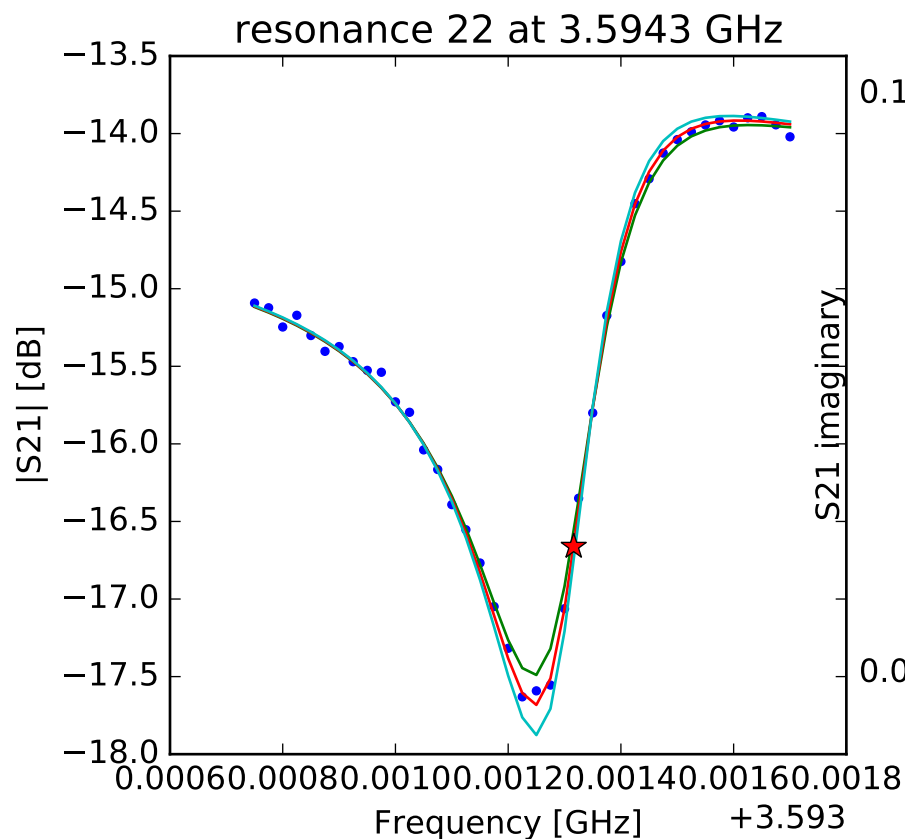
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.56553480946$
 $Q_r = 5787.21239236$
 $Q_c = 10948.4219192$
 $a = (-0.0936400883368 + 0.162621251336j)$
 $\phi = 0.195030426836$
 $\tau = 28.932782089$



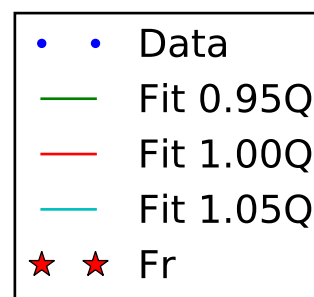
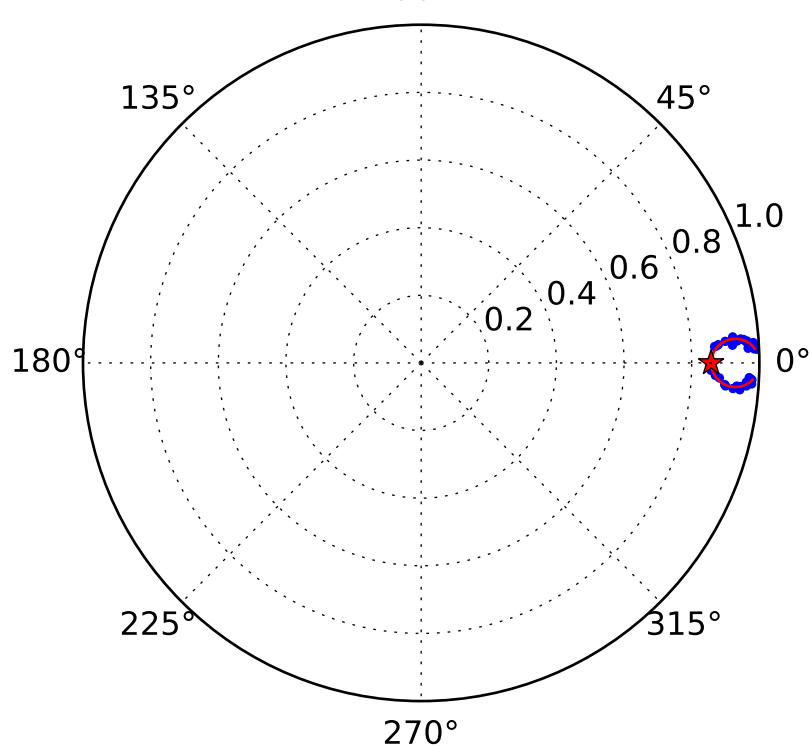
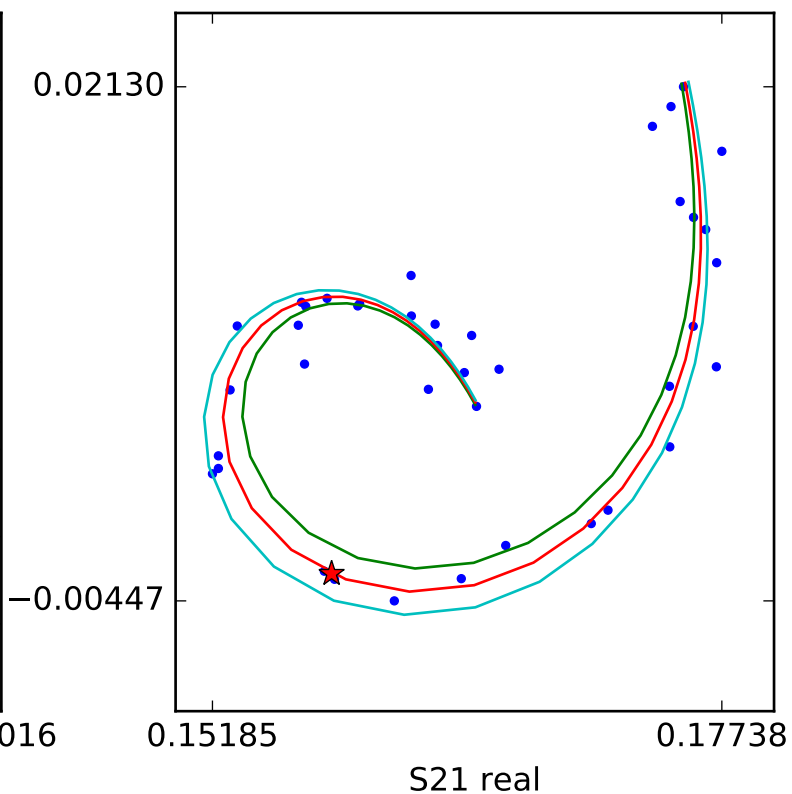
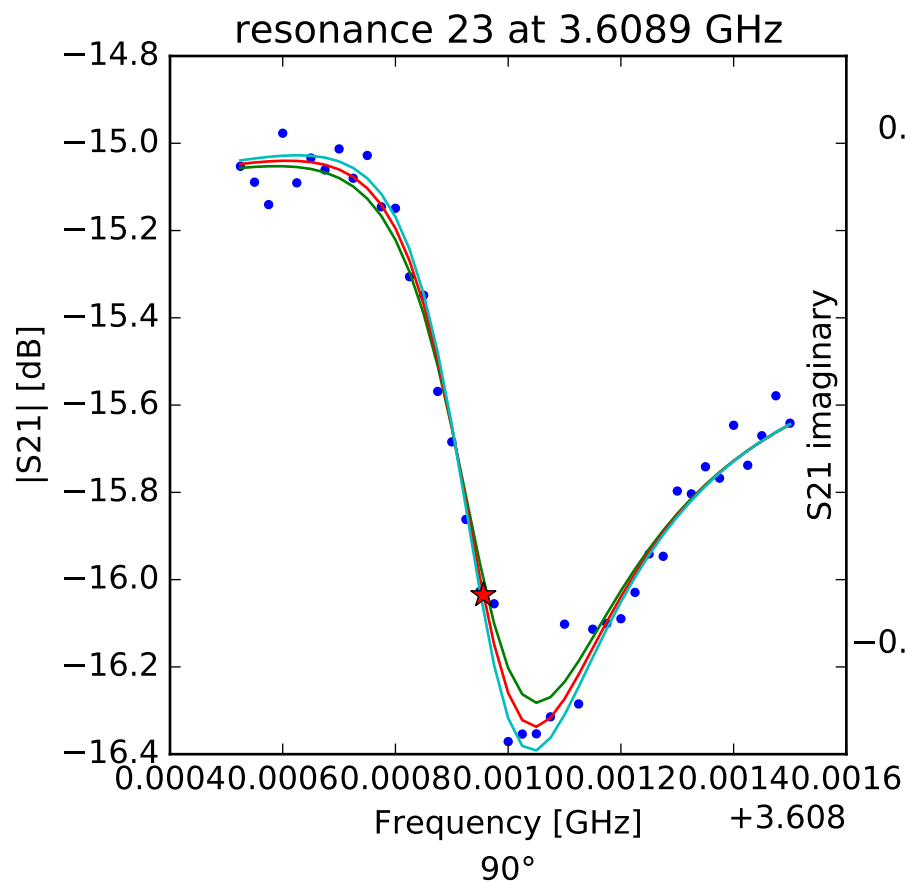
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.5756436733$
 $Q_r = 5778.92643323$
 $Q_c = 9149.85834948$
 $a = (-0.0412603371708 - 0.177168708885j)$
 $\phi = 0.0309270742637$
 $\tau = 25.6790112714$



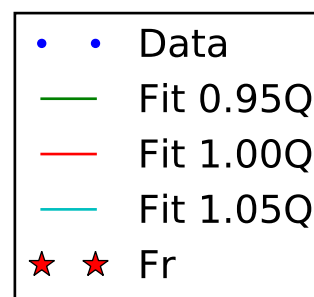
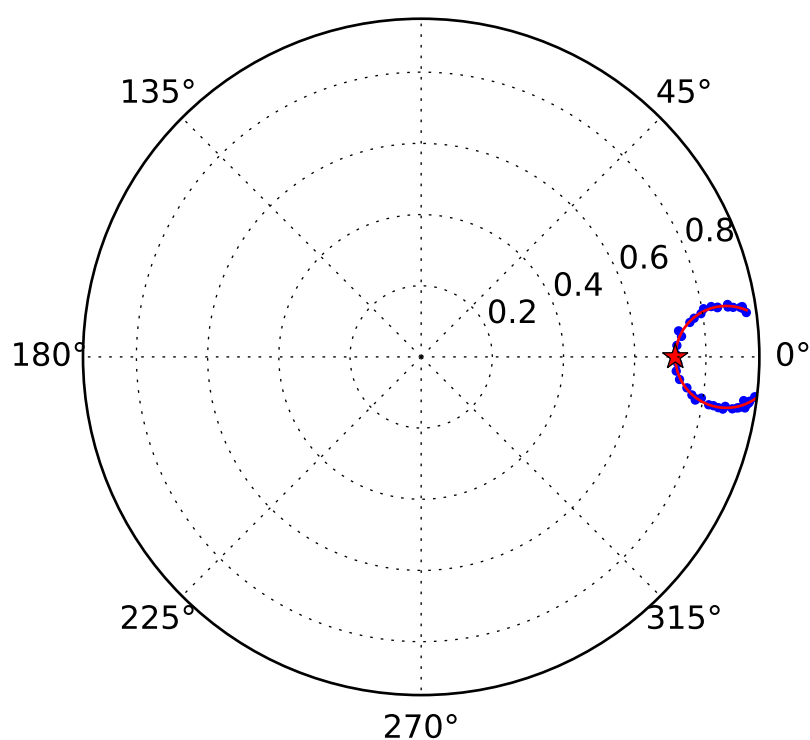
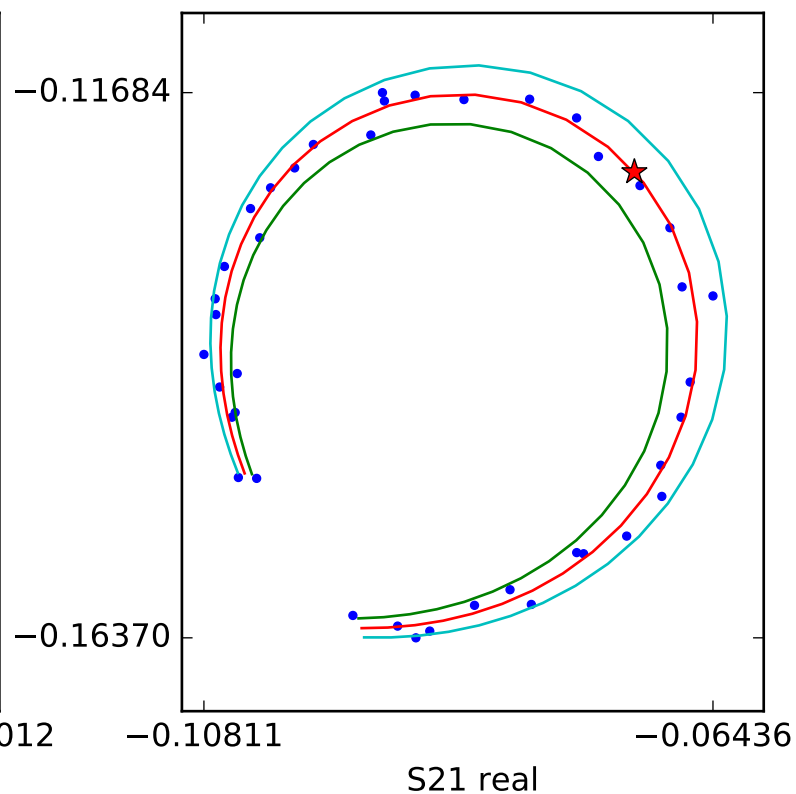
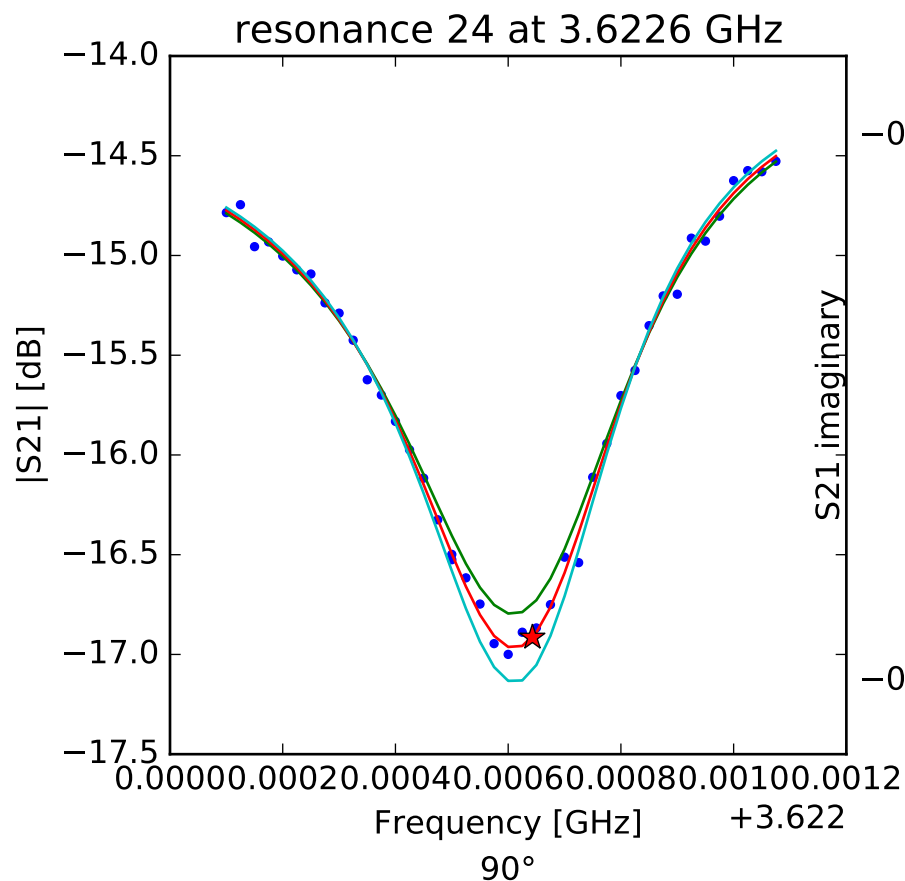
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.59431622634$
 $Q_r = 12606.9035032$
 $Q_c = 33756.2825003$
 $a = (0.188356165901 - 0.0241785547616j)$
 $\phi = -0.760101632286$
 $\tau = 27.1502716169$



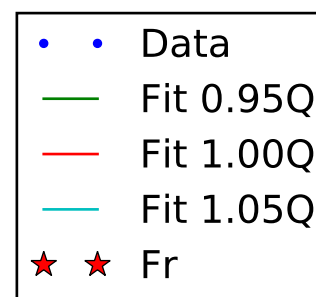
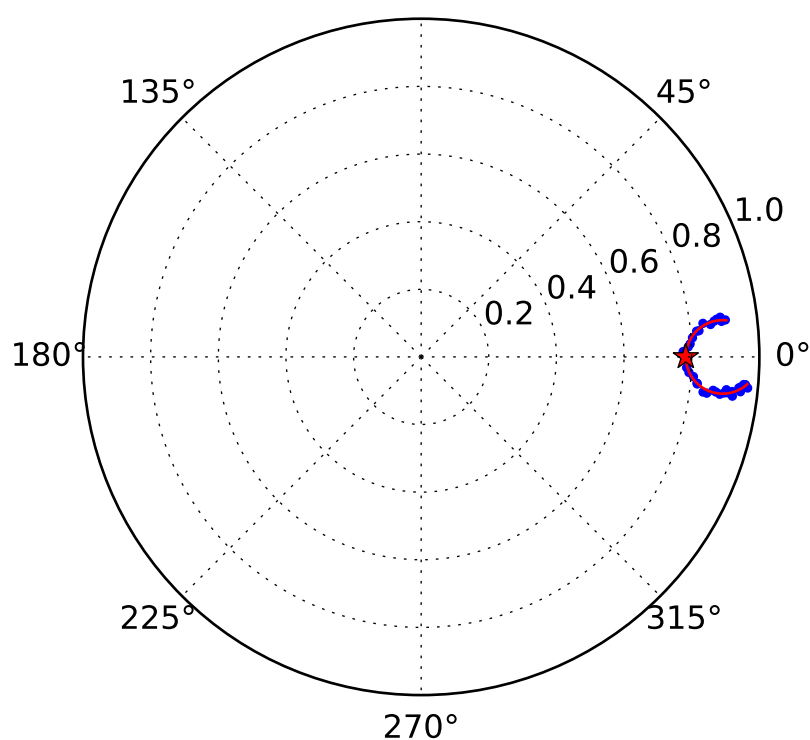
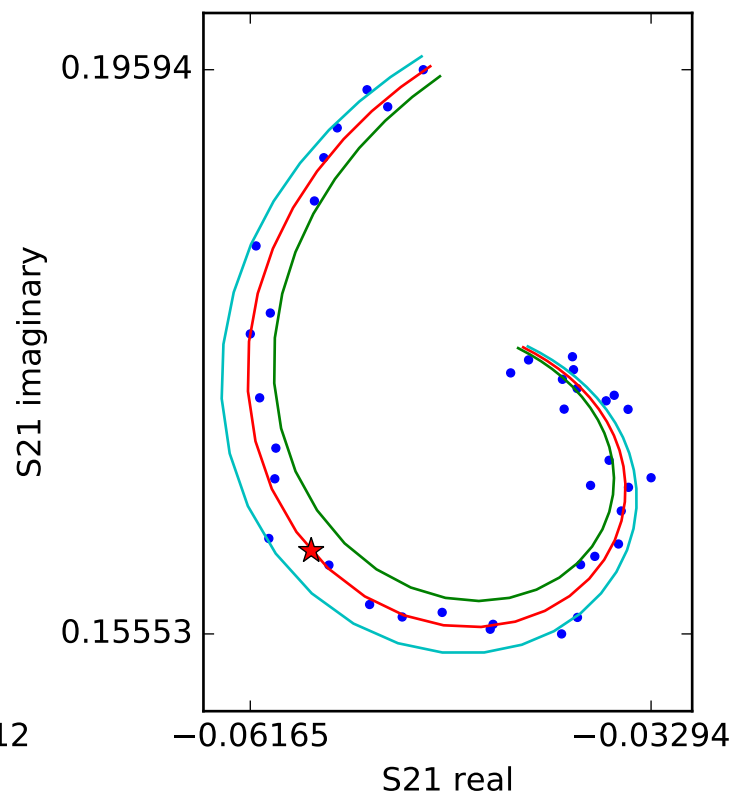
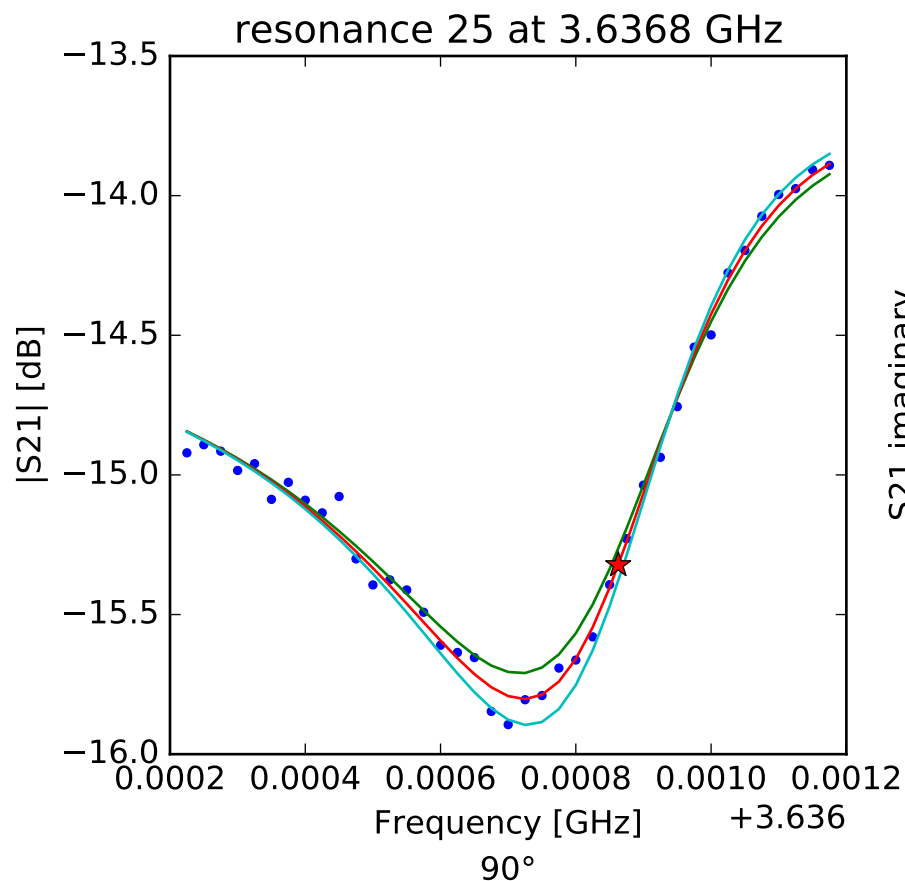
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.60895603203$
 $Q_r = 10160.9226091$
 $Q_c = 71236.0986101$
 $a = (-0.161252041838 + 0.0604461349507j)$
 $\phi = 0.887346726944$
 $\tau = 24.7791327926$



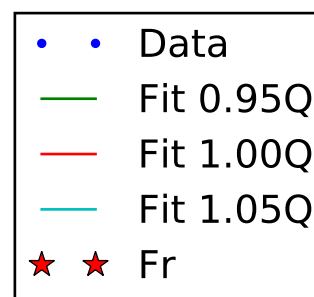
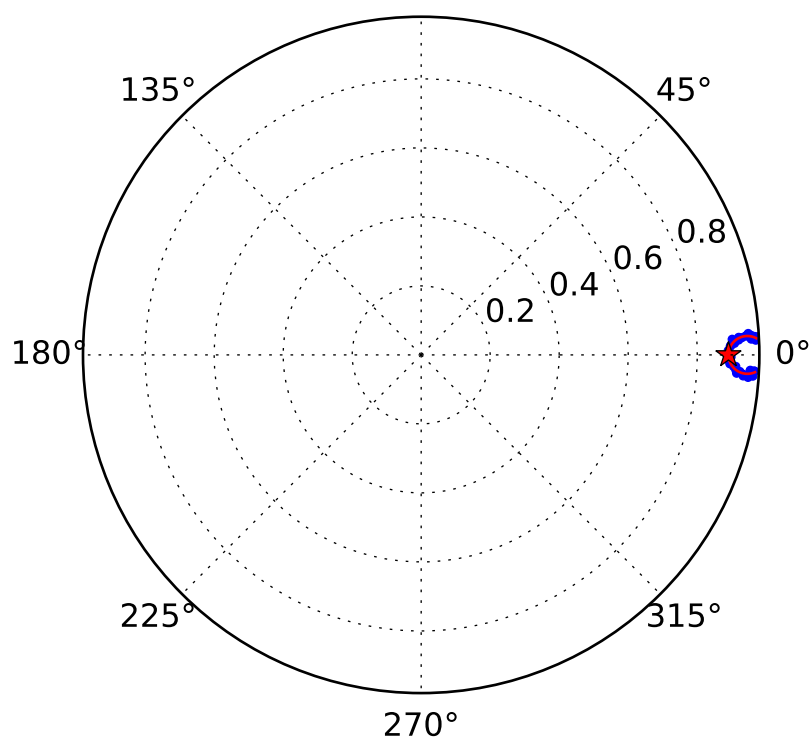
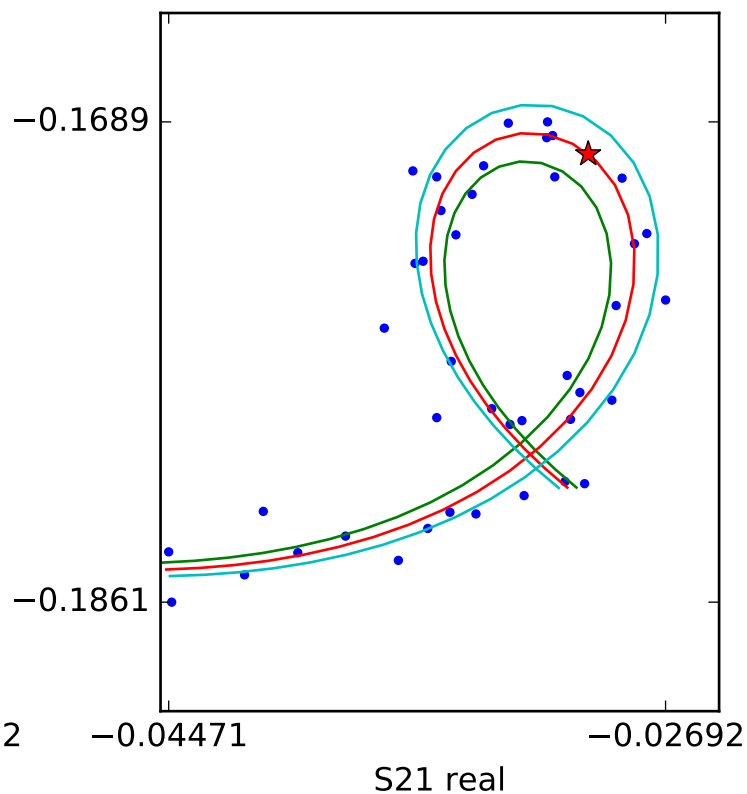
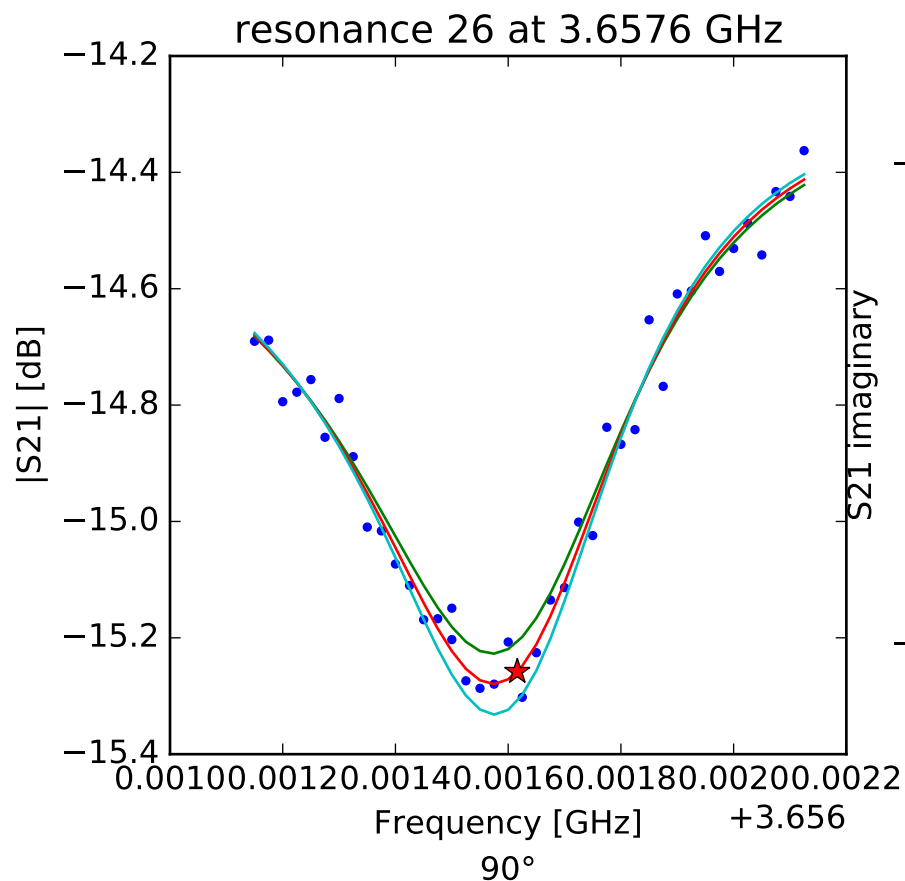
$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.62264303104$
 $Q_r = 6396.38255657$
 $Q_c = 22344.6223311$
 $a = (-0.0155525970026 - 0.197142675227j)$
 $\phi = -0.195691053784$
 $\tau = 29.5593091104$



$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.63686273761$
 $Q_r = 6428.13299144$
 $Q_c = 29546.5778281$
 $a = (-0.17979159044 + 0.0815998360068j)$
 $\phi = -0.828337467508$
 $\tau = 27.5395344926$



$$t_{21}(f) = ae^{-2\pi jf\tau} \left[1 - \frac{Q_r/Q_c e^{j\phi_0}}{1 + 2jQ_r \left(\frac{f-f_r}{f_r} \right)} \right]$$

$f_r = 3.65761615317$
 $Q_r = 6013.44596441$
 $Q_c = 54889.5466699$
 $a = (-0.137076845446 + 0.135800946325j)$
 $\phi = -0.261519785906$
 $\tau = 27.5201898395$