

Information for resolving comments #21 and #19

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2013 January 24

Comment #21:

In Annex 93A most likely in 93A.1.6, say:

“When COM is used to define broad band noise used in interference tolerance test:”

Then define

$$H_{np} = H_{noise}(f) * H_{pkg} * H_r(f) * H_{ctl}(f)$$

Where:

$H_{noise}(f)$ Is the measure S21 of path from Broad Band Noise output of
Replica trace measured in mellitz_3bj_03b_0113 slide 9

$H_{package}$ is the COM code computed package S21 as described in
mellitz_3bj_01b_0113 slides 5-10

Let

$$Gain_{noise} = \sqrt{\left(\int_0^{fb/2} |H_{np}|^2 \right) / (0.5 * fb)}$$

$$\sigma_{broad_band_noise} = WGN * Gain_{noise}$$

$$\sigma_G = \sqrt{\left(A_s * \sigma_{RJ} \right)^2 + \sigma_r^2 + \sigma_{noise}^2}$$

Comment #21 (continued):

When annex 93A is used to calibrate COM for interference tolerance use:

$$\sigma_{RJ} = RJ_{RMS_actual}$$

$$ADD = 0.5 * D_{jpeak-peak_actual}$$

In lieu of the specified values, where the values subscripted “actual”
Are measured values for the transmitter used in the test.

Comment #19:

The noise, measured at TP5A, due to the test channel Gaussian white noise source has a crest factor at least 4. The noise spectral density in dB has limits:

$$\text{NSD} < \text{average NSD} + 3 \text{ dB} \qquad 1 \text{ GHz} < f < f_b/2$$

$$\text{NSD} > \text{average NSD} - 3 \text{ dB} \cdot (f/f_b) \qquad 1 \text{ GHz} < f < f_b/2$$

The added white Gaussian noise is
the RMS value of the noise over the frequency range from 0 to $f_b/2$.