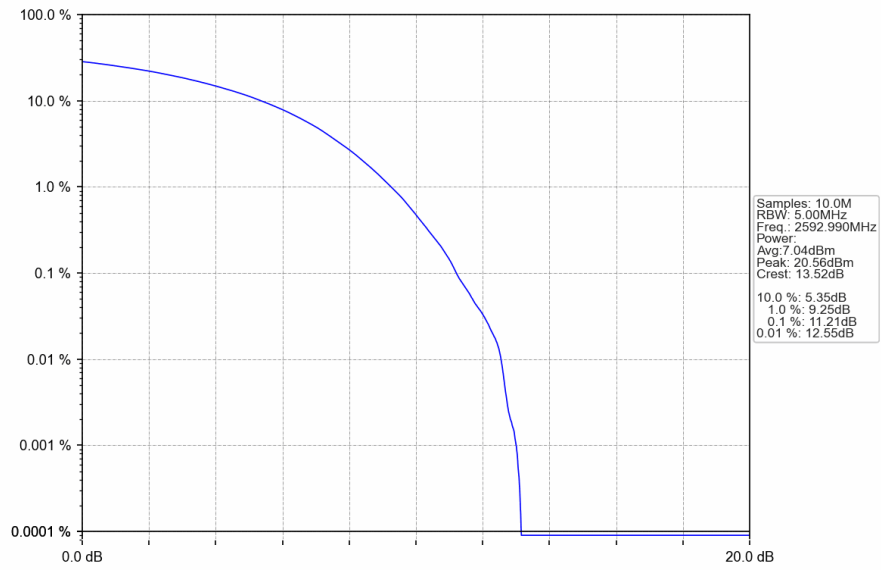
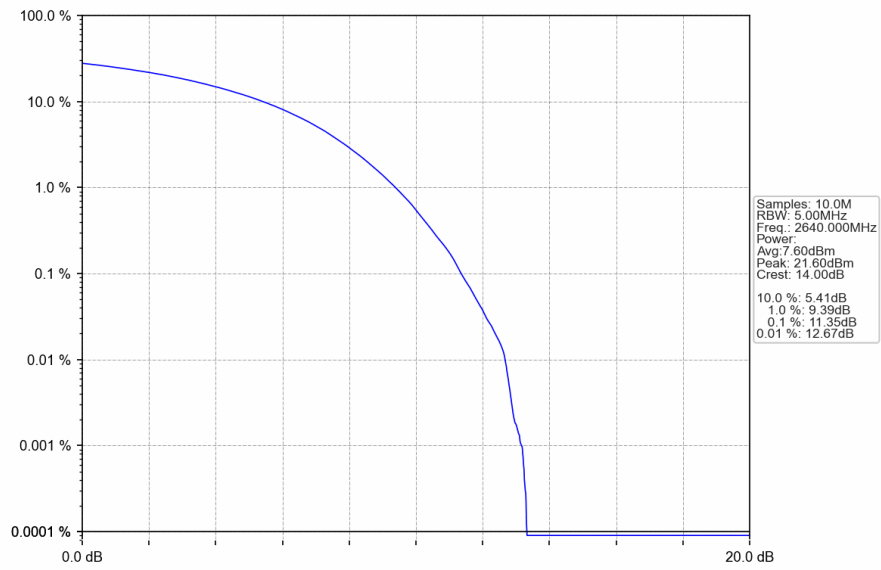


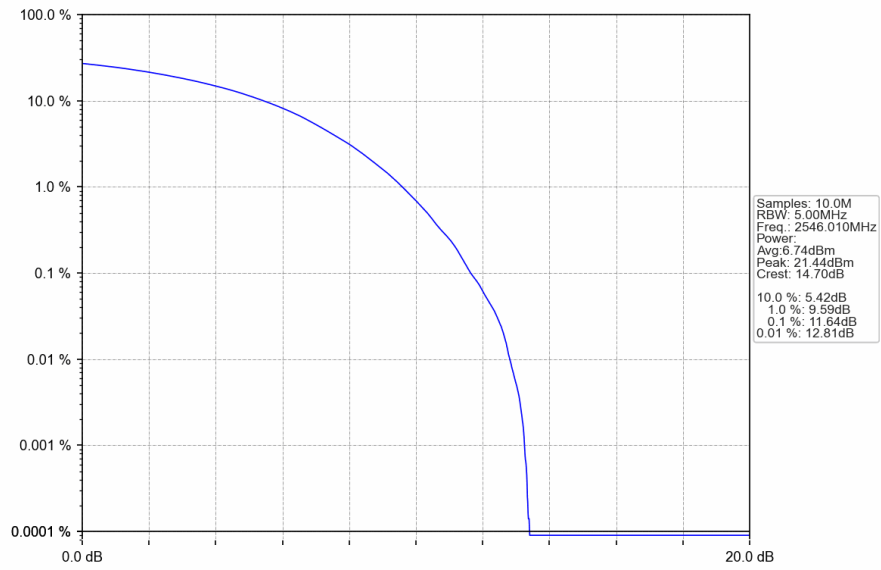
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM QPSK\_2592.99MHz\_Outer\_Full



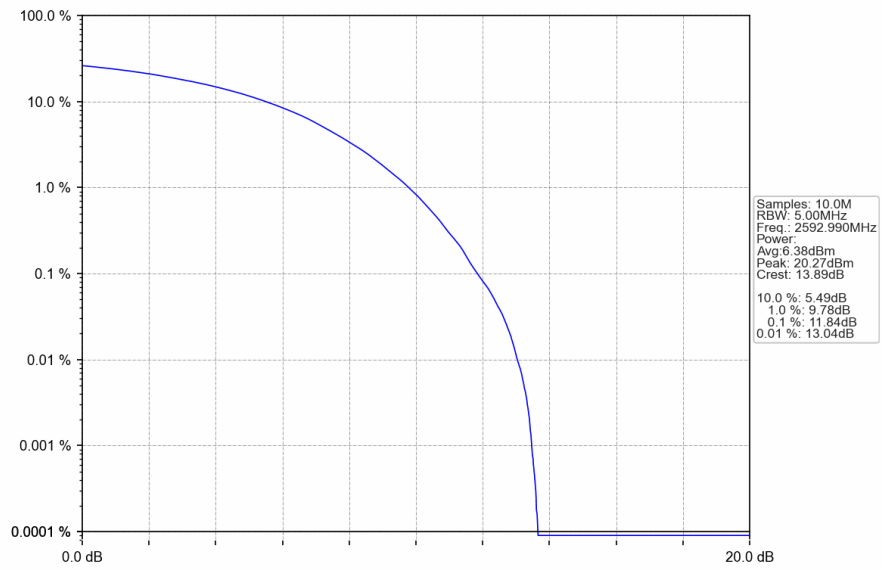
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM QPSK\_2640MHz\_Outer\_Full



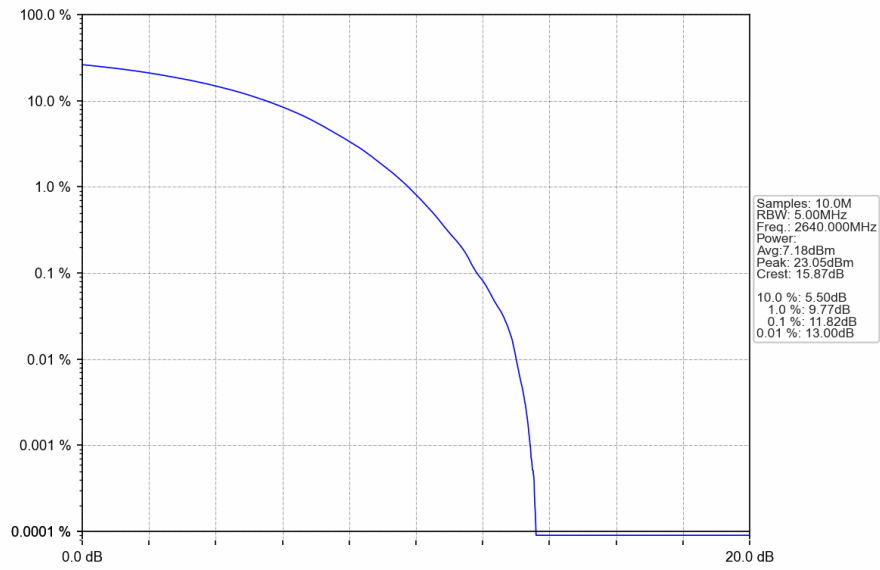
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 16 QAM 2546.01MHz\_Outer\_Full



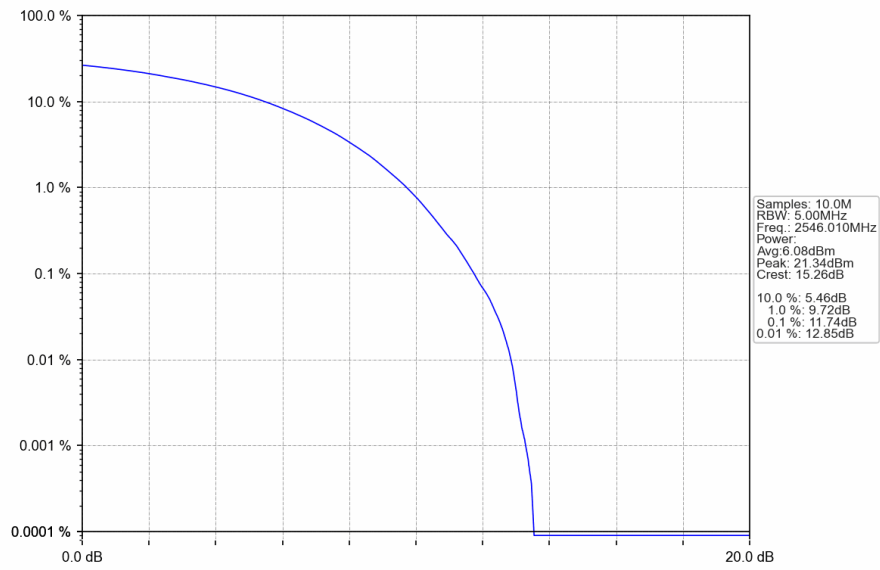
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 16 QAM 2592.99MHz\_Outer\_Full



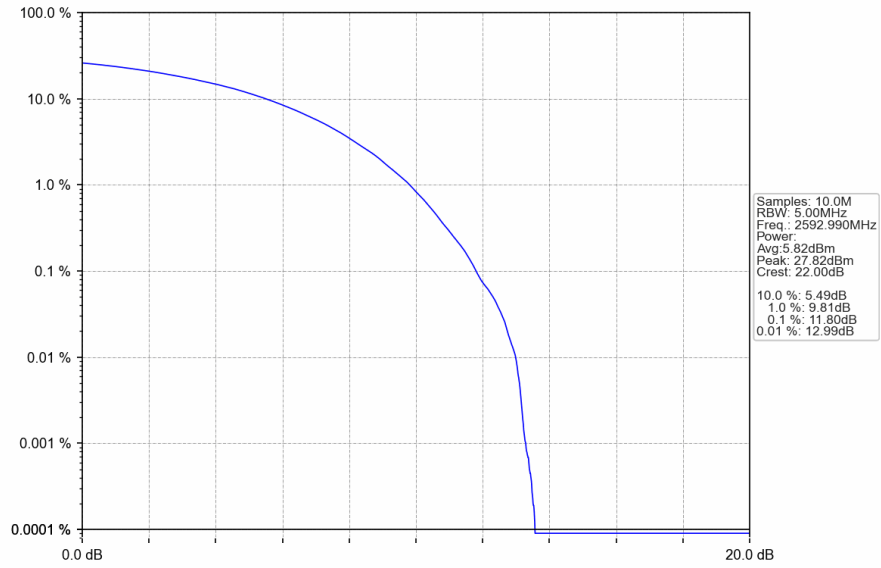
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 16 QAM 2640MHz\_Outer\_Full



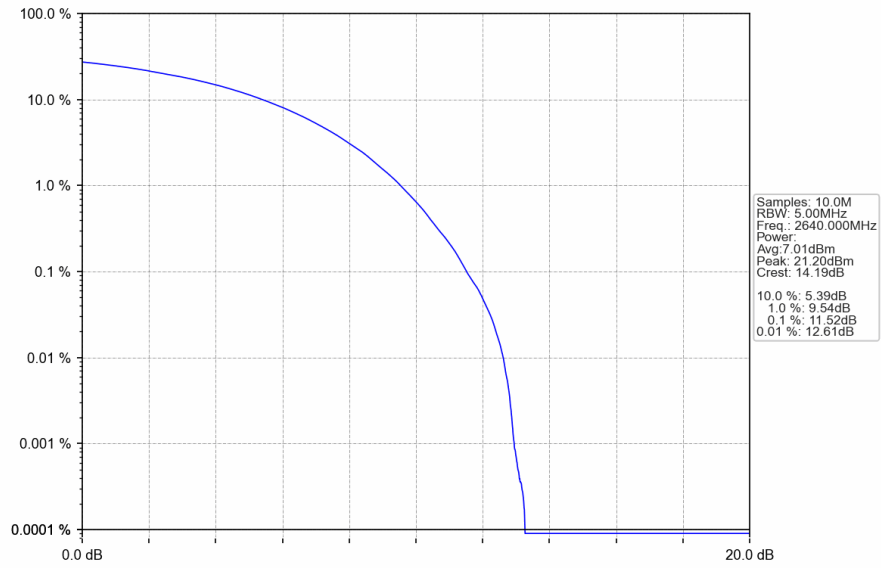
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 64 QAM 2546.01MHz\_Outer\_Full



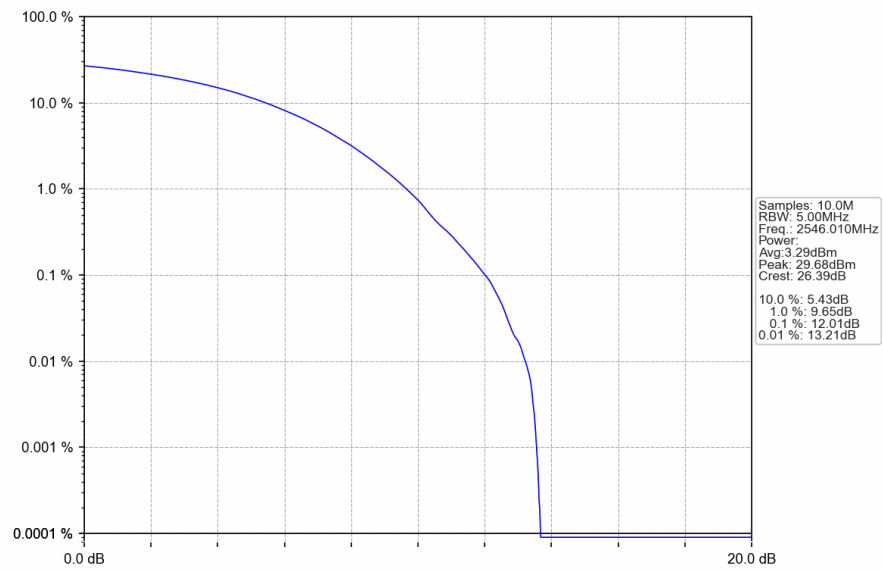
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 64 QAM\_2592.99MHz\_Outer\_Full



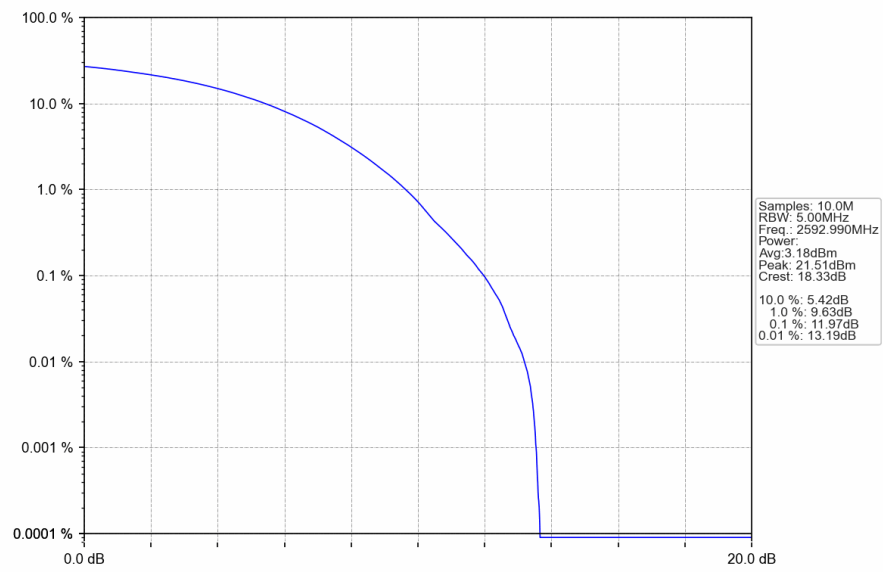
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 64 QAM\_2640MHz\_Outer\_Full



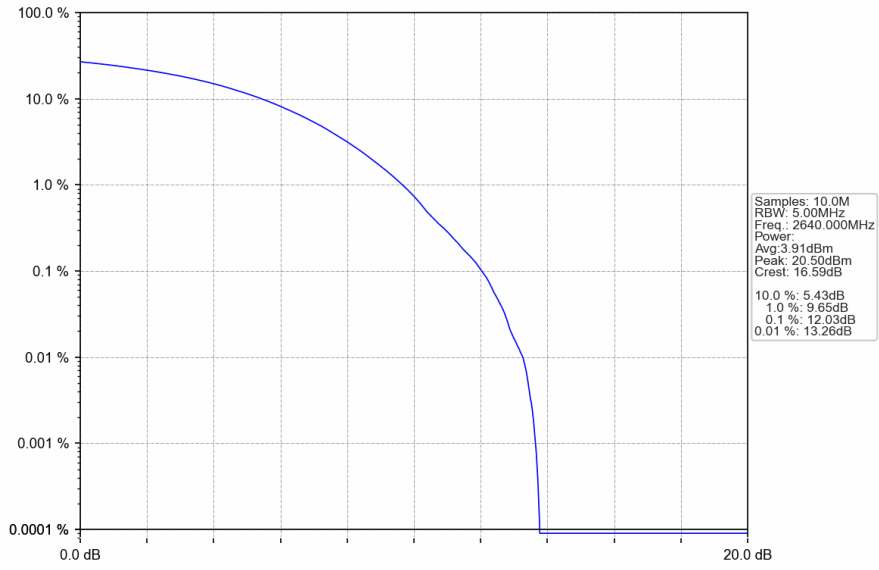
n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 256 QAM\_2546.01MHz\_Outer\_Full



n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM 256 QAM\_2592.99MHz\_Outer\_Full



n41\_30kHz\_SISO\_NTNV\_100MHz\_CP-OFDM\_256\_QAM\_2640MHz\_Outer\_Full



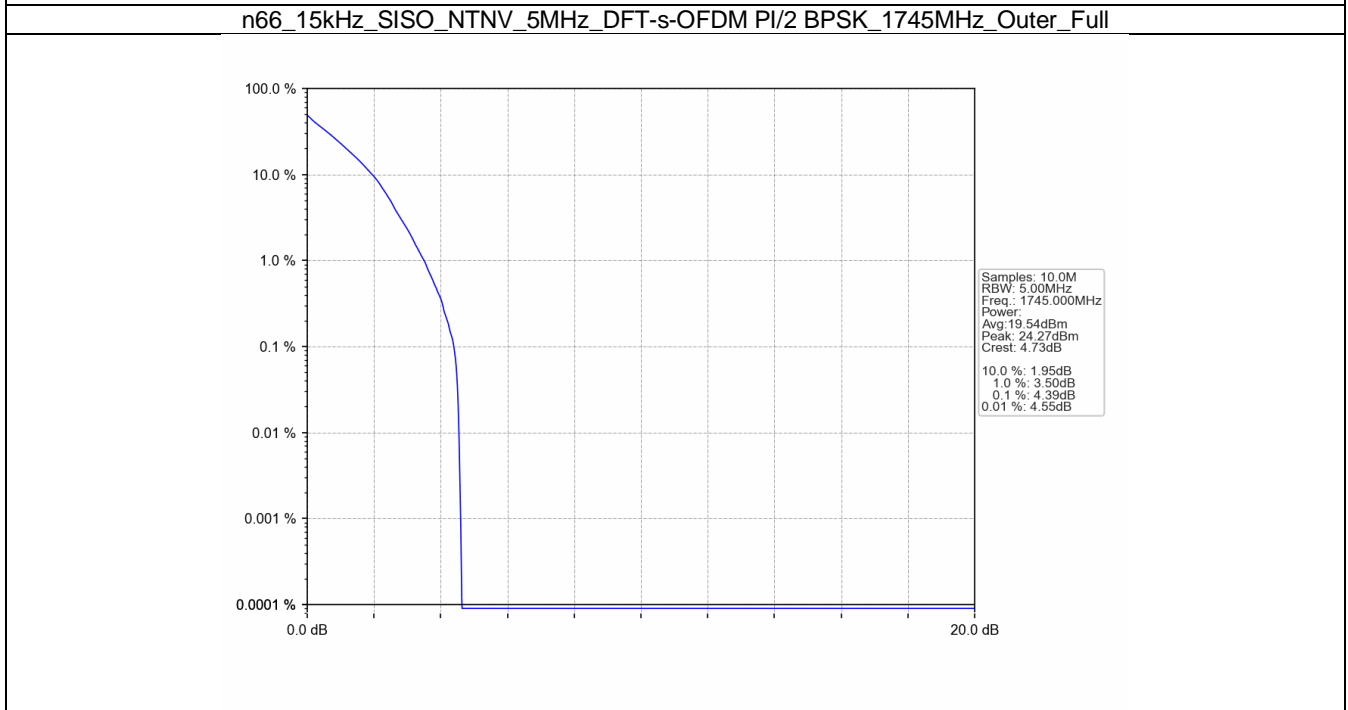
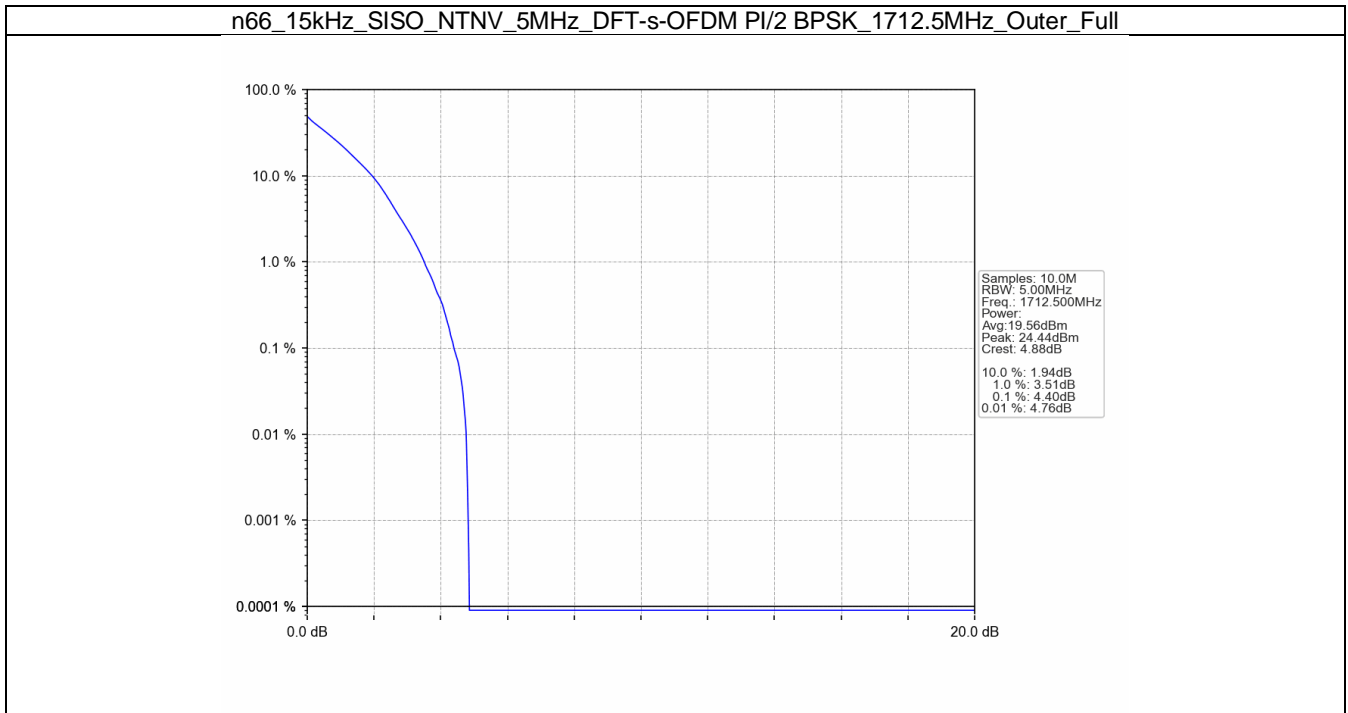
## 4. Peak-Average Ratio

### 4.1 15k\_SISO\_5MHz\_NTNV

#### 4.1.1 Test Result

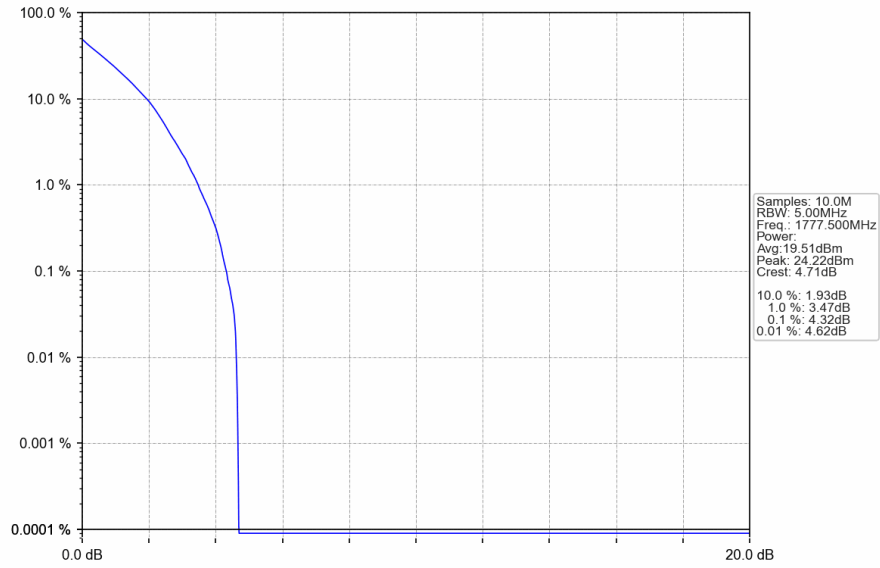
| 5G NR n66 SCS=15kHz SISO 5MHz NTV |                 |               |                          |      |     |       |         |
|-----------------------------------|-----------------|---------------|--------------------------|------|-----|-------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation | Peak-Average Ratio (dBm) |      |     |       | Verdict |
|                                   |                 |               | Ant1                     | Ant2 | Sum | Limit |         |
| DFT-s-OFDM PI/2 BPSK              | 1712.5          | Outer_Full    | 4.40                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 4.39                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 4.32                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM QPSK                   | 1712.5          | Outer_Full    | 5.49                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 5.37                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 5.36                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 16 QAM                 | 1712.5          | Outer_Full    | 6.45                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 6.34                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 6.30                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 64 QAM                 | 1712.5          | Outer_Full    | 6.64                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 6.62                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 6.57                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 256 QAM                | 1712.5          | Outer_Full    | 6.49                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 6.46                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 6.39                     | /    | /   | <=13  | Pass    |
| CP-OFDM QPSK                      | 1712.5          | Outer_Full    | 7.51                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 7.37                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 7.37                     | /    | /   | <=13  | Pass    |
| CP-OFDM 16 QAM                    | 1712.5          | Outer_Full    | 7.70                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 7.53                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 7.54                     | /    | /   | <=13  | Pass    |
| CP-OFDM 64 QAM                    | 1712.5          | Outer_Full    | 7.68                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 7.61                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 7.59                     | /    | /   | <=13  | Pass    |
| CP-OFDM 256 QAM                   | 1712.5          | Outer_Full    | 8.53                     | /    | /   | <=13  | Pass    |
|                                   | 1745            | Outer_Full    | 8.46                     | /    | /   | <=13  | Pass    |
|                                   | 1777.5          | Outer_Full    | 8.33                     | /    | /   | <=13  | Pass    |

### 4.1.2 Test Graph

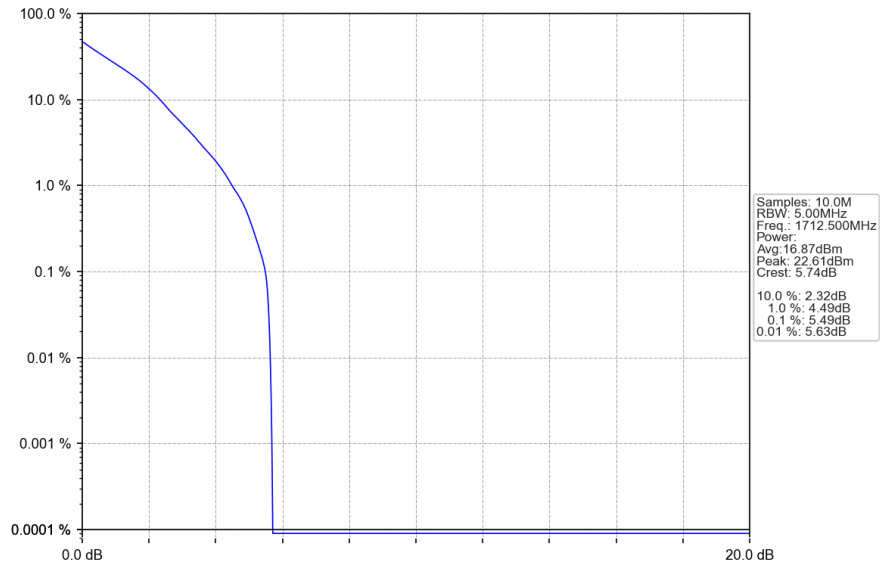




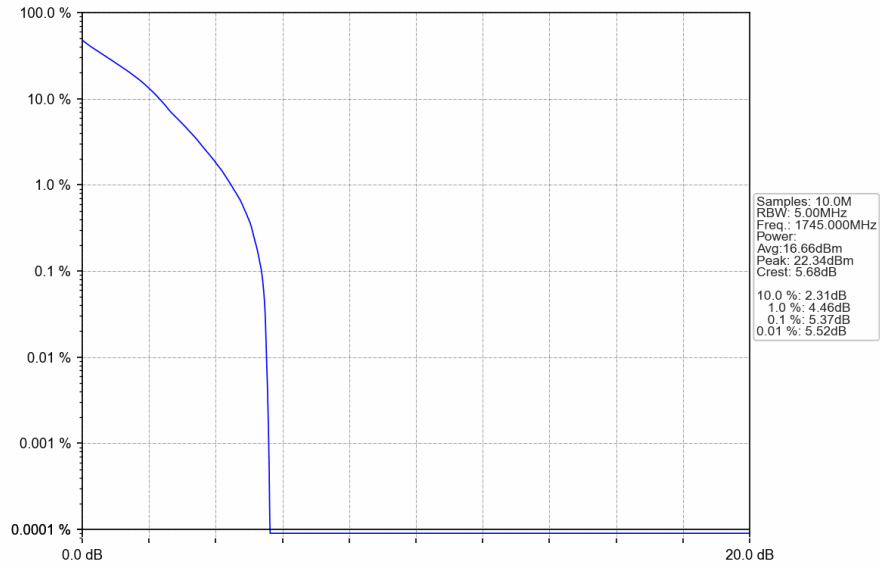
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM PI/2 BPSK\_1777.5MHz\_Outer\_Full



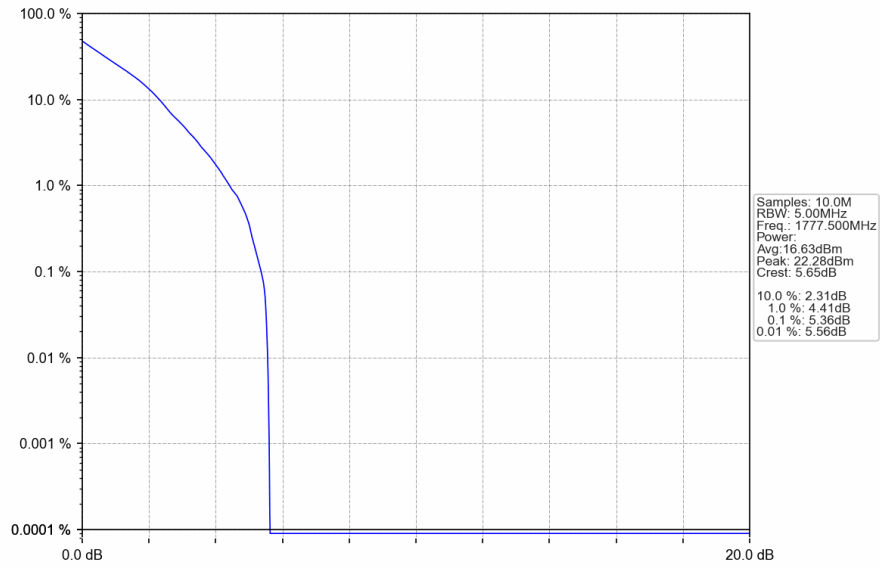
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM QPSK\_1712.5MHz\_Outer\_Full



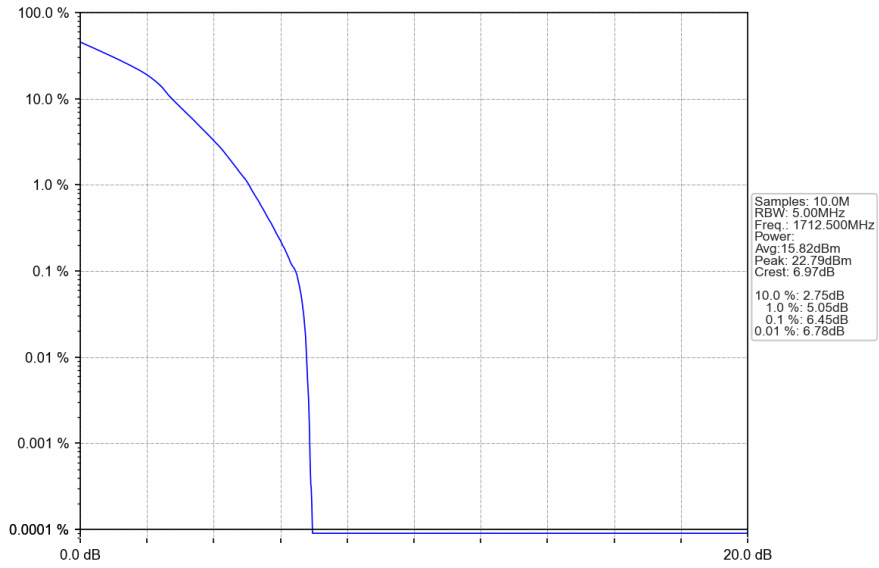
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM QPSK\_1745MHz\_Outer\_Full



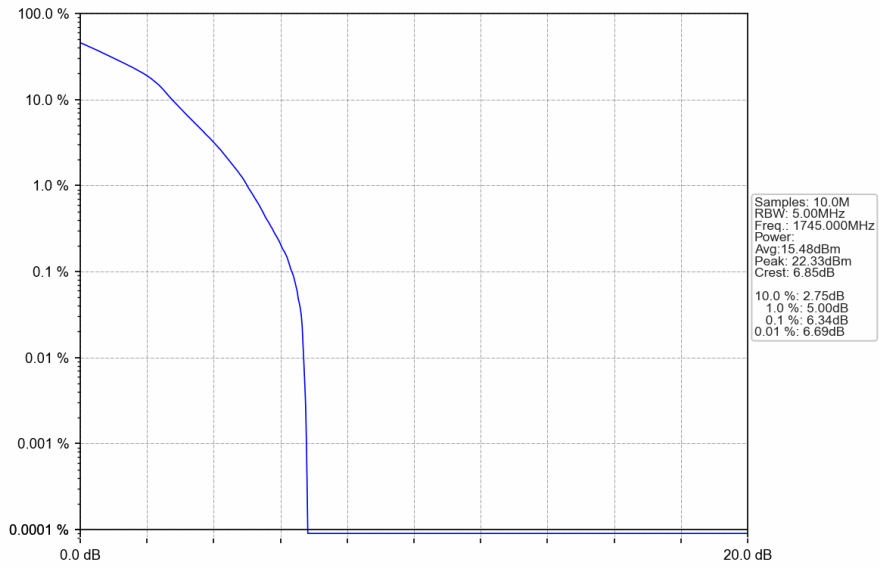
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM QPSK\_1777.5MHz\_Outer\_Full



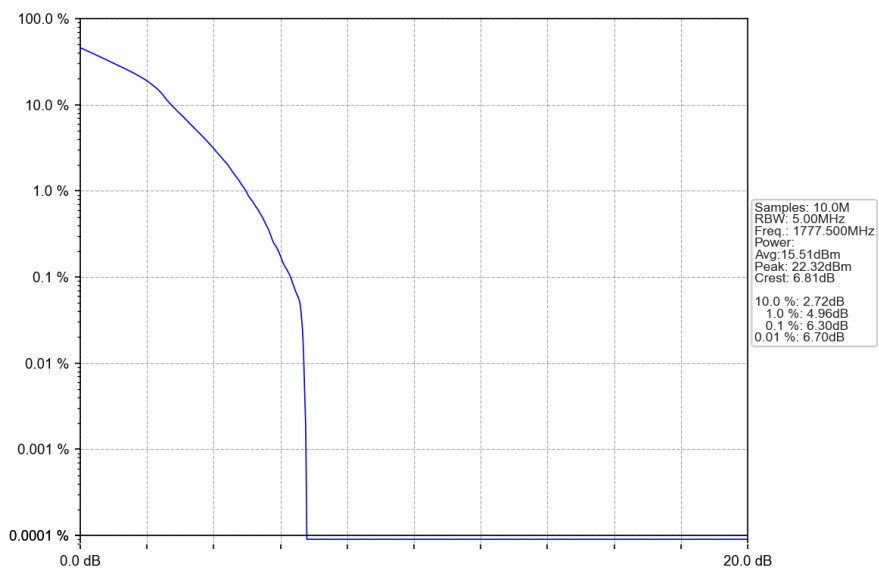
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM\_16 QAM\_1712.5MHz\_Outer\_Full



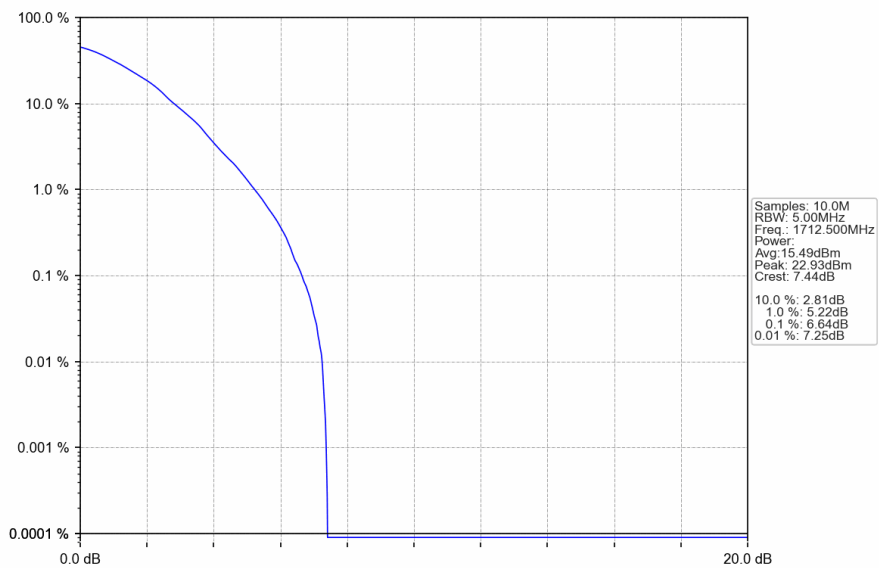
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM\_16 QAM\_1745MHz\_Outer\_Full



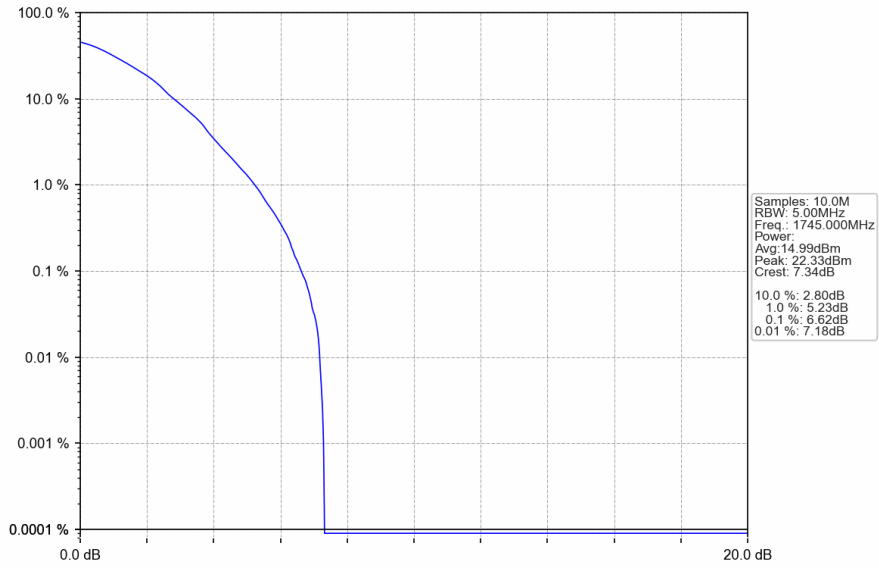
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 16 QAM\_1777.5MHz\_Outer\_Full



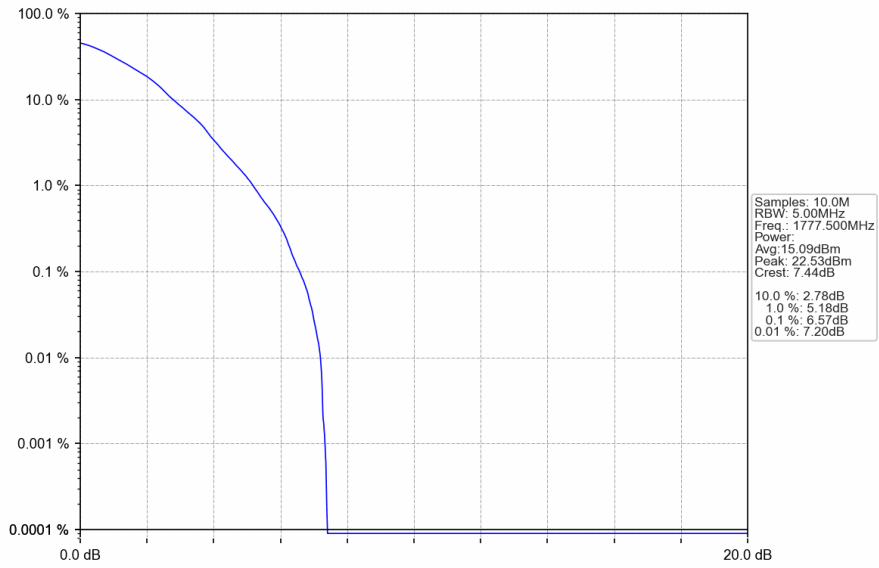
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 64 QAM\_1712.5MHz\_Outer\_Full



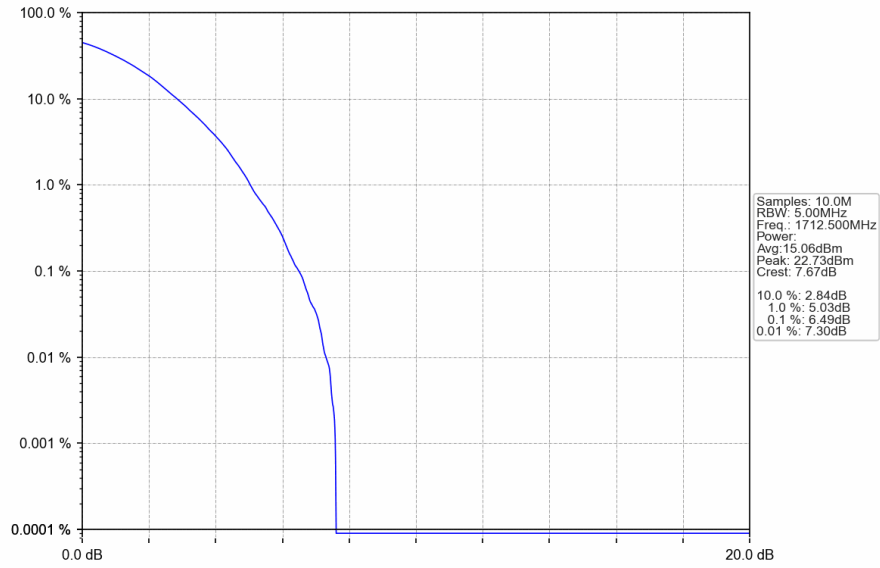
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 64 QAM\_1745MHz\_Outer\_Full



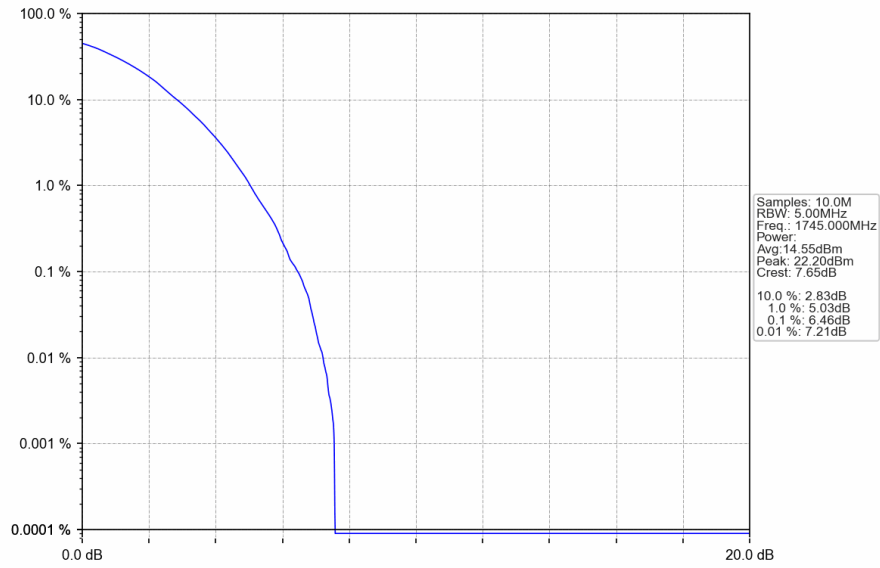
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 64 QAM\_1777.5MHz\_Outer\_Full



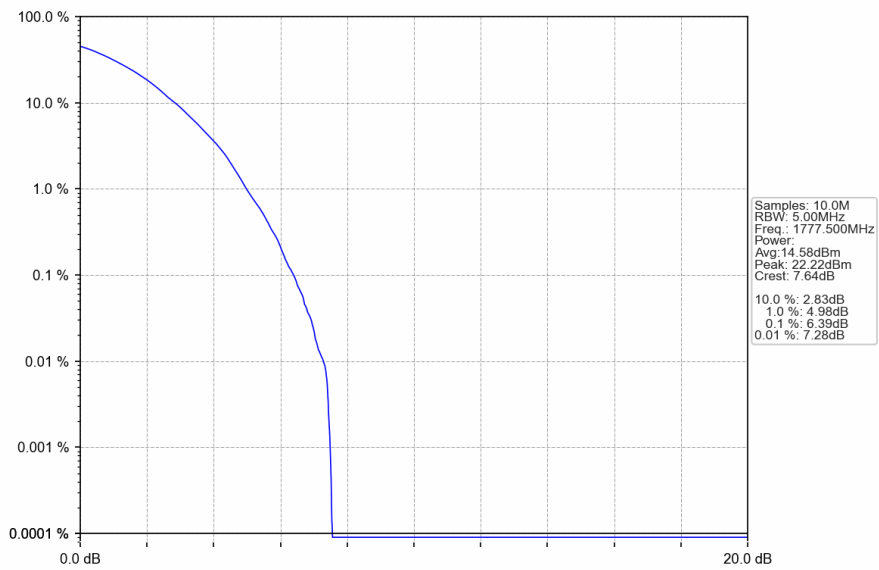
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 256 QAM\_1712.5MHz\_Outer\_Full



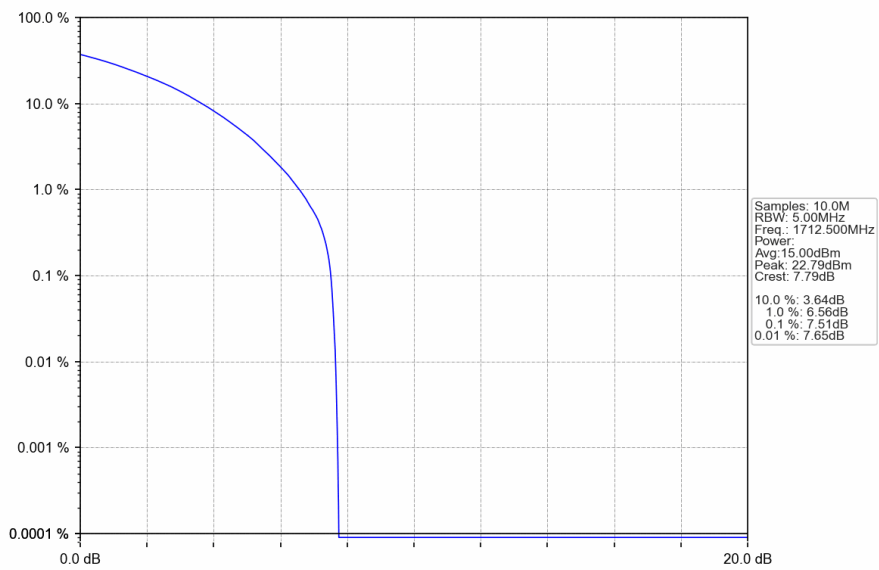
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 256 QAM\_1745MHz\_Outer\_Full



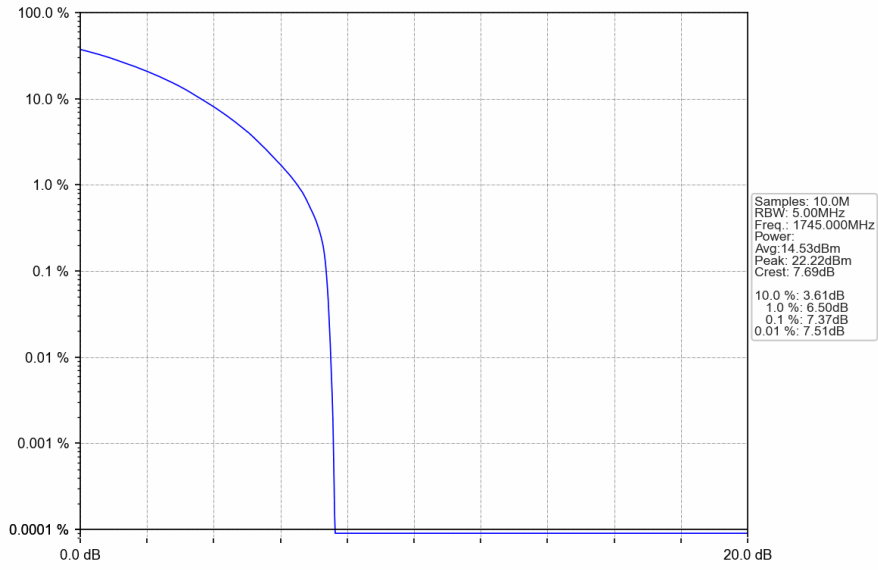
n66\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 256 QAM\_1777.5MHz\_Outer\_Full



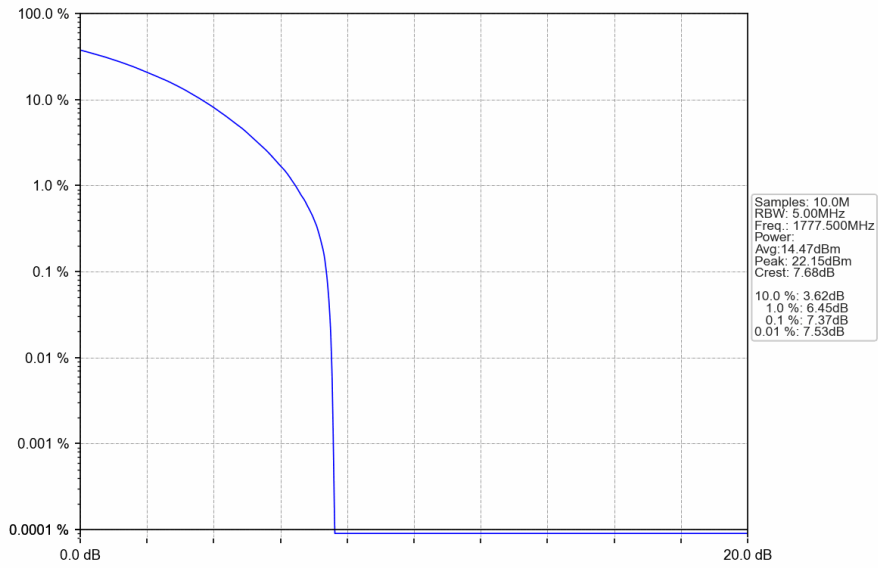
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM QPSK\_1712.5MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM QPSK\_1745MHz\_Outer\_Full

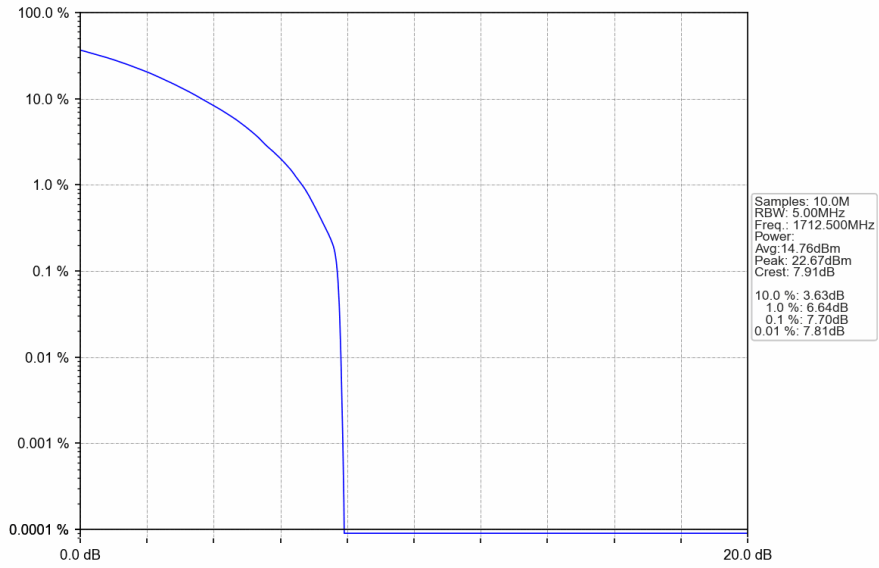


n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM QPSK\_1777.5MHz\_Outer\_Full

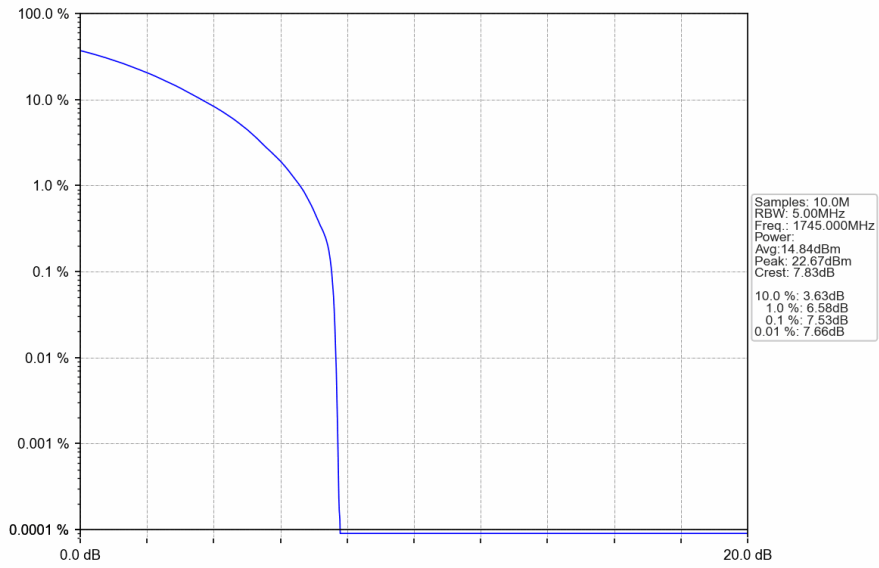




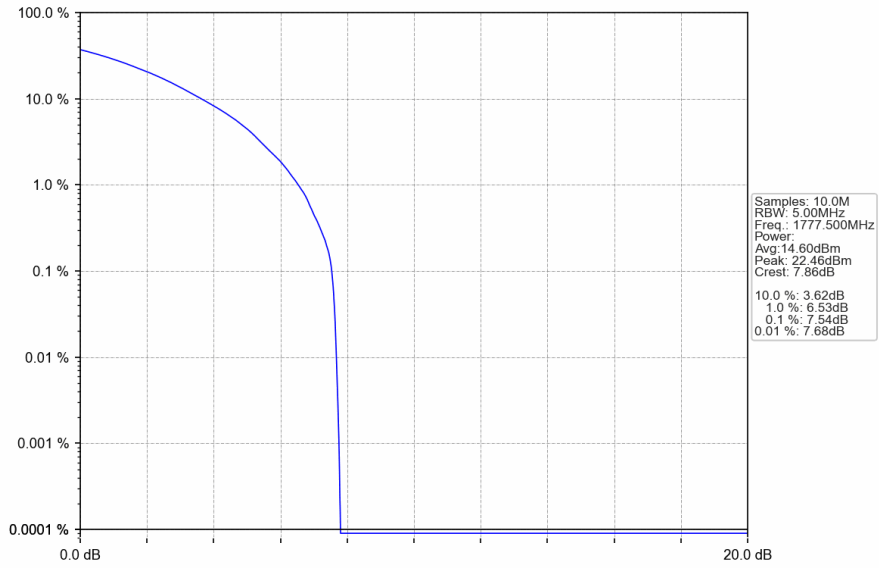
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 16 QAM\_1712.5MHz\_Outer\_Full



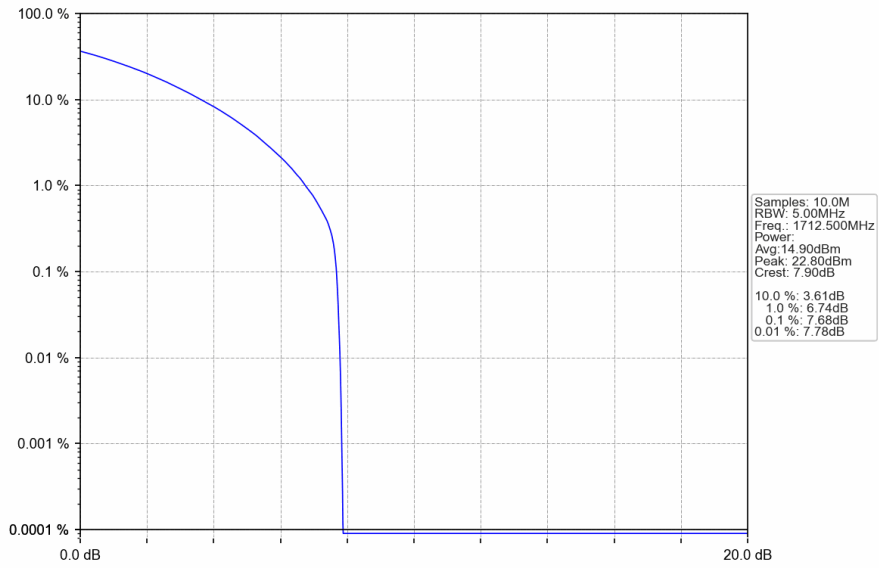
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 16 QAM\_1745MHz\_Outer\_Full



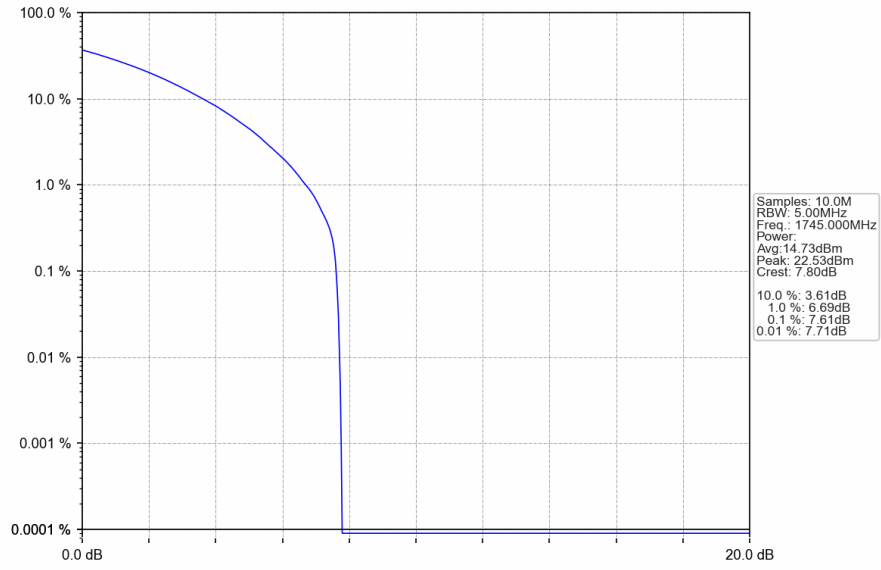
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 16 QAM\_1777.5MHz\_Outer\_Full



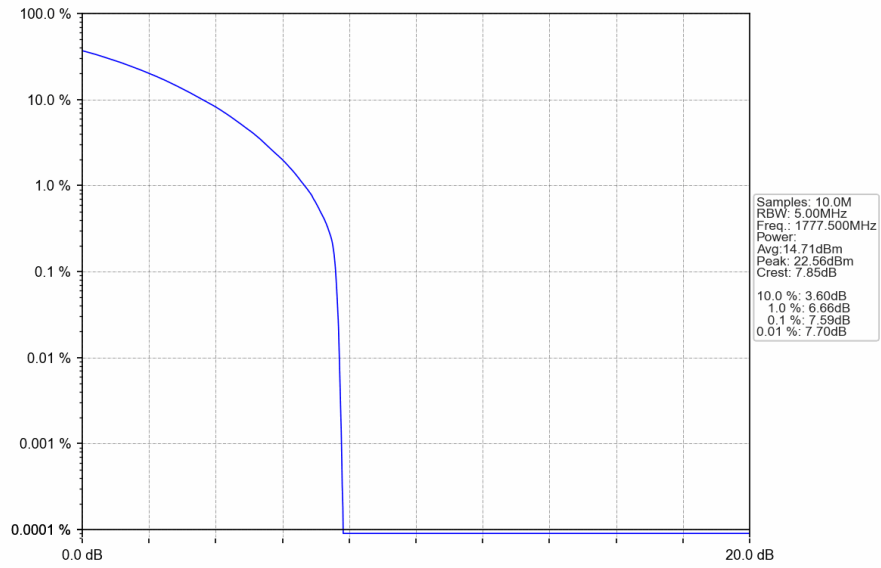
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 64 QAM\_1712.5MHz\_Outer\_Full



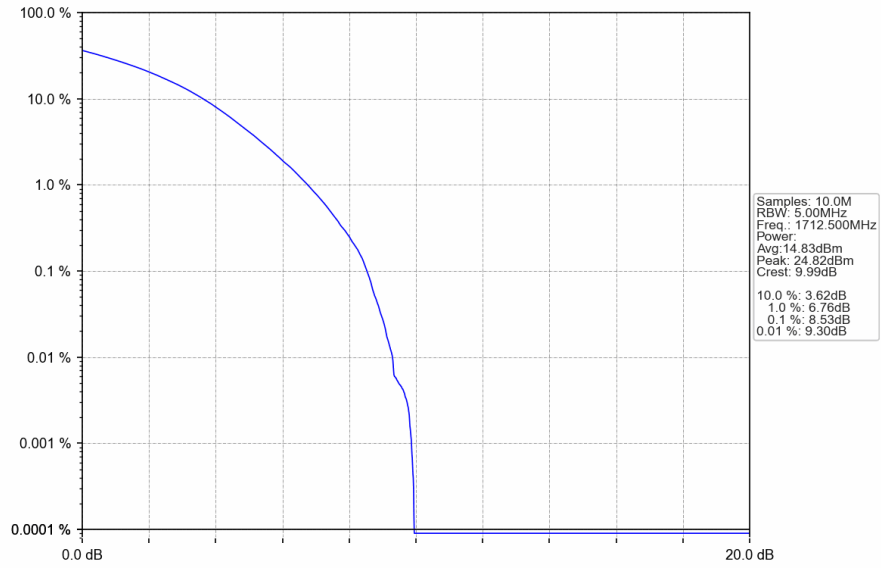
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 64 QAM\_1745MHz\_Outer\_Full



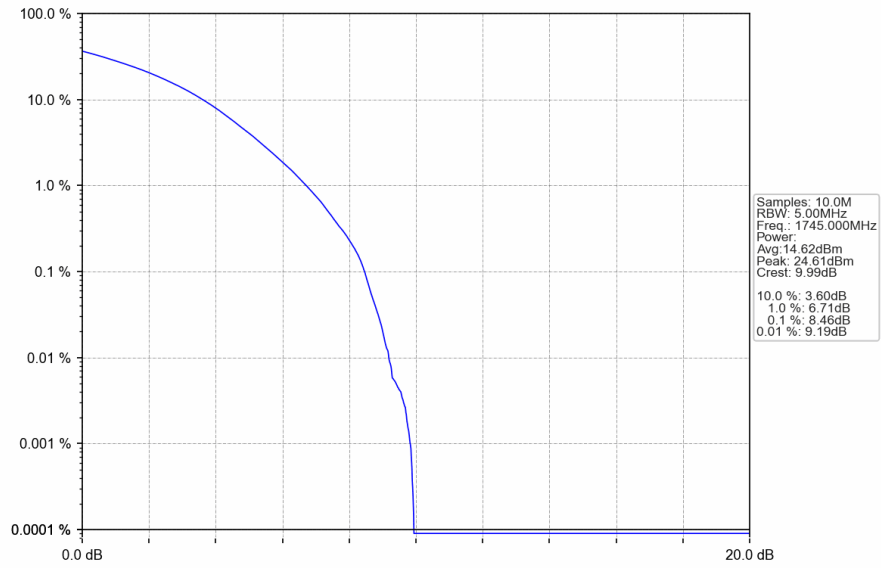
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 64 QAM\_1777.5MHz\_Outer\_Full



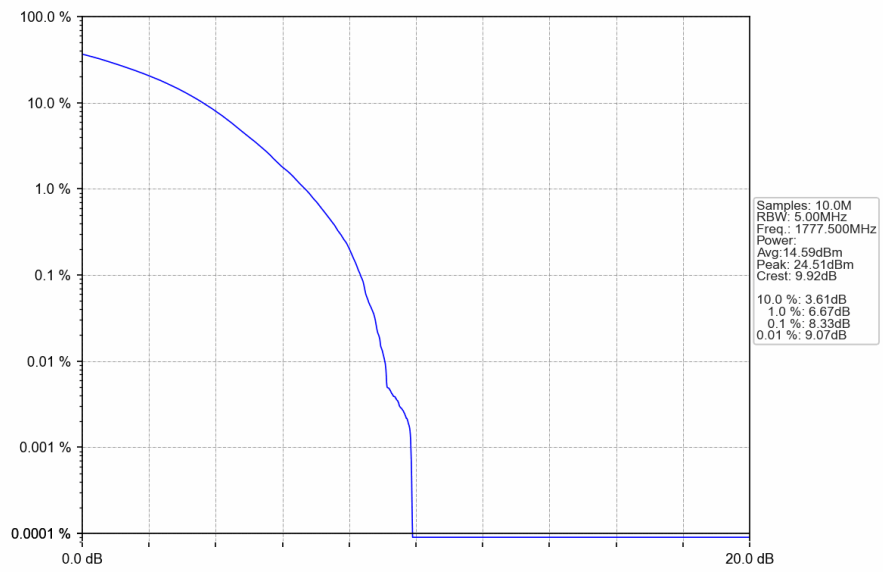
n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 256 QAM\_1712.5MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 256 QAM\_1745MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTV\_5MHz\_CP-OFDM 256 QAM 1777.5MHz\_Outer\_Full



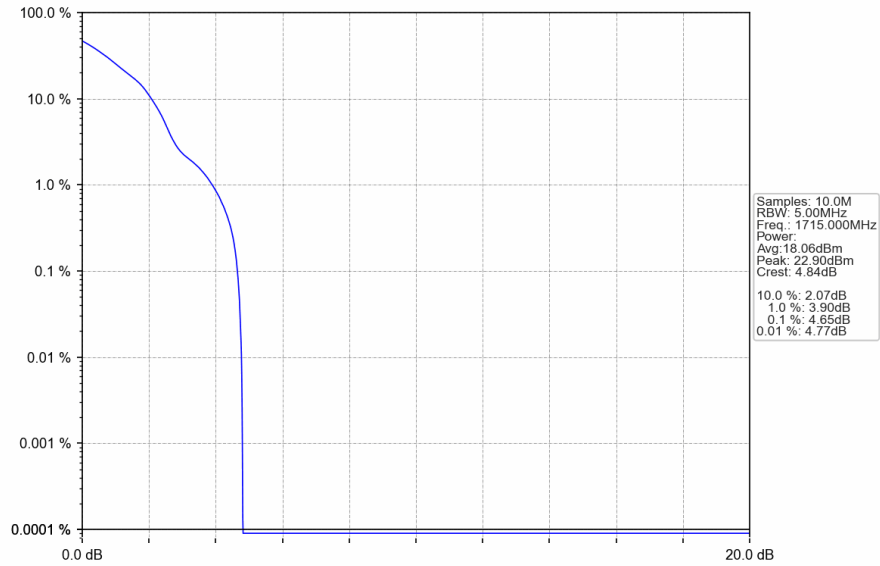
## 4.2 15k\_SISO\_10MHz\_NTNV

### 4.2.1 Test Result

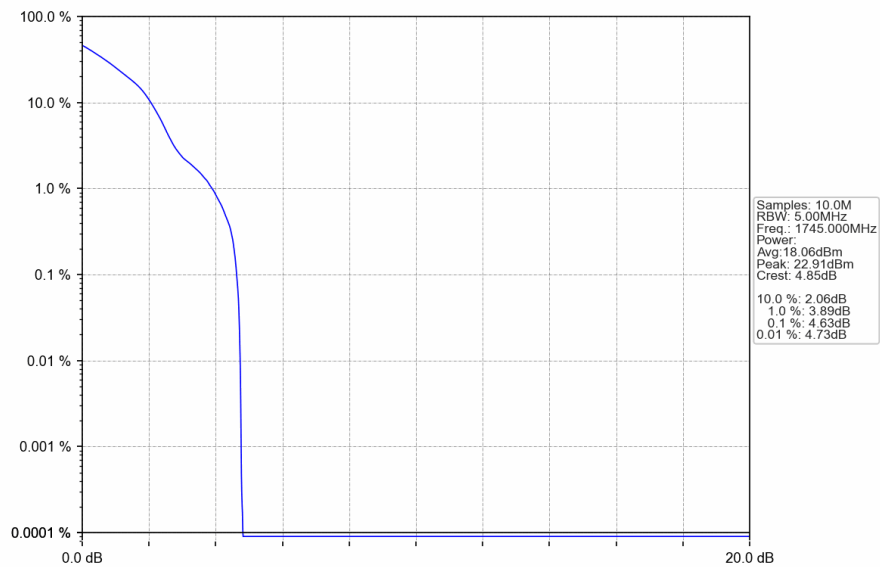
| 5G NR n66 SCS=15kHz SISO 10MHz NTN |                 |               |                          |      |     |       |         |
|------------------------------------|-----------------|---------------|--------------------------|------|-----|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation | Peak-Average Ratio (dBm) |      |     |       | Verdict |
|                                    |                 |               | Ant1                     | Ant2 | Sum | Limit |         |
| DFT-s-OFDM PI/2 BPSK               | 1715            | Outer_Full    | 4.65                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 4.63                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 4.64                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM QPSK                    | 1715            | Outer_Full    | 4.71                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 4.72                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 4.72                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 16 QAM                  | 1715            | Outer_Full    | 6.15                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.08                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 6.08                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 64 QAM                  | 1715            | Outer_Full    | 6.44                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.40                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 6.41                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 256 QAM                 | 1715            | Outer_Full    | 6.49                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.45                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 6.43                     | /    | /   | <=13  | Pass    |
| CP-OFDM QPSK                       | 1715            | Outer_Full    | 7.84                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.05                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 8.05                     | /    | /   | <=13  | Pass    |
| CP-OFDM 16 QAM                     | 1715            | Outer_Full    | 7.94                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.26                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 8.25                     | /    | /   | <=13  | Pass    |
| CP-OFDM 64 QAM                     | 1715            | Outer_Full    | 7.87                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.12                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 8.07                     | /    | /   | <=13  | Pass    |
| CP-OFDM 256 QAM                    | 1715            | Outer_Full    | 8.55                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.52                     | /    | /   | <=13  | Pass    |
|                                    | 1775            | Outer_Full    | 8.46                     | /    | /   | <=13  | Pass    |

### 4.2.2 Test Graph

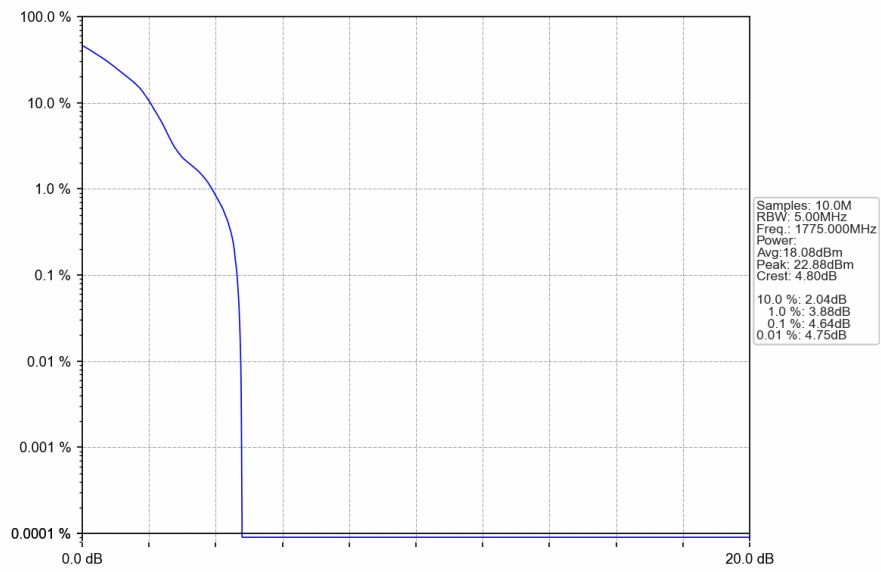
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM PI/2 BPSK\_1715MHz\_Outer\_Full



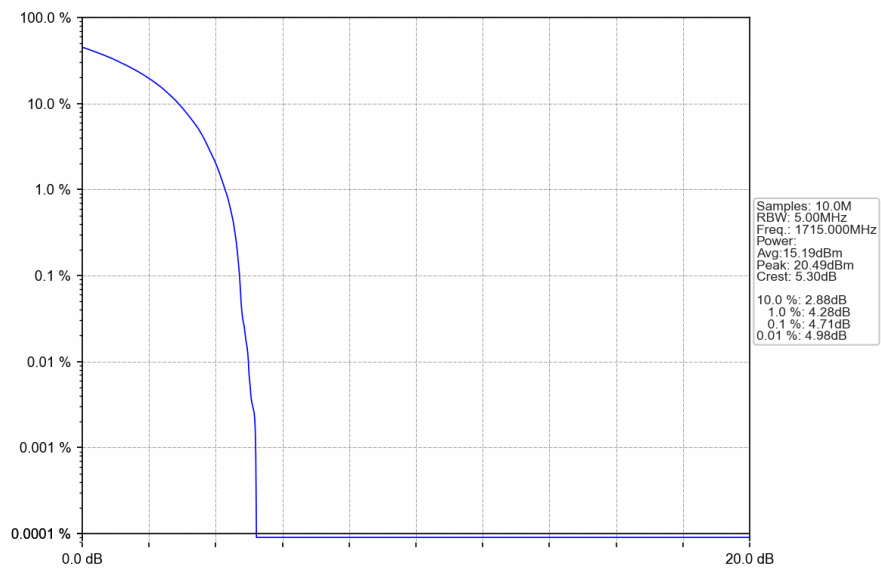
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM PI/2 BPSK\_1745MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM PI/2 BPSK\_1775MHz\_Outer\_Full

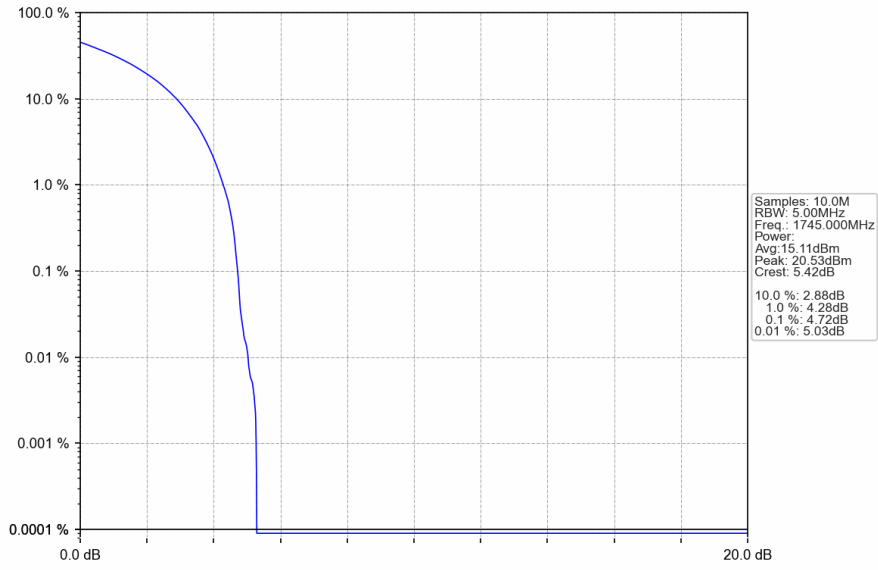


n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM QPSK\_1715MHz\_Outer\_Full

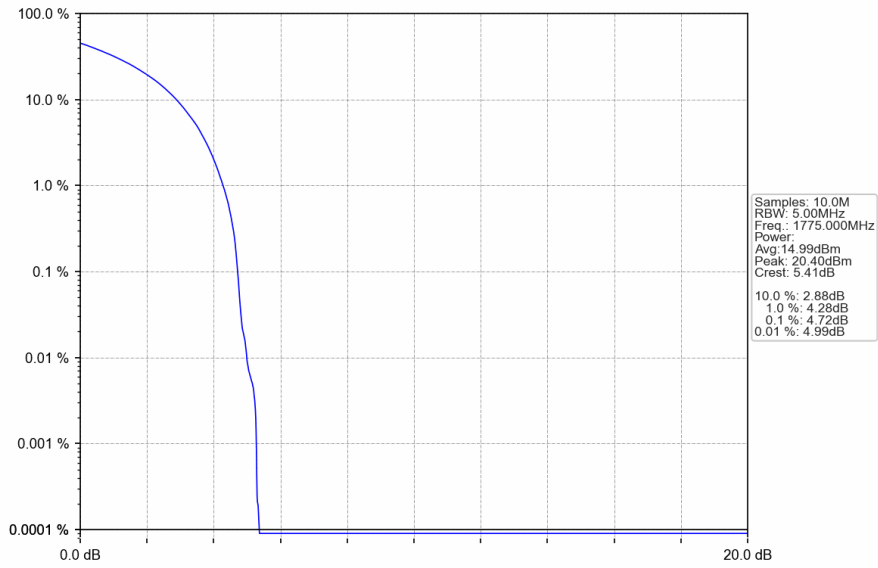




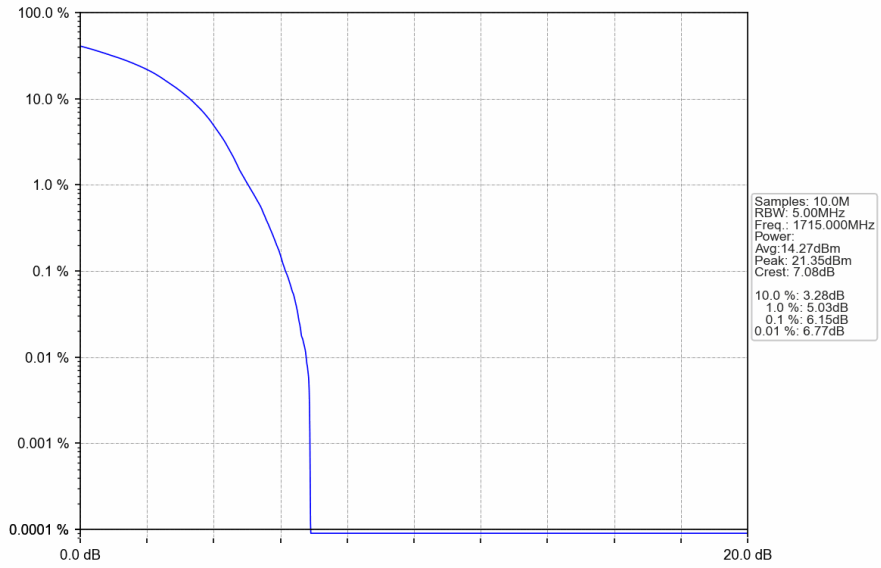
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM QPSK\_1745MHz\_Outer\_Full



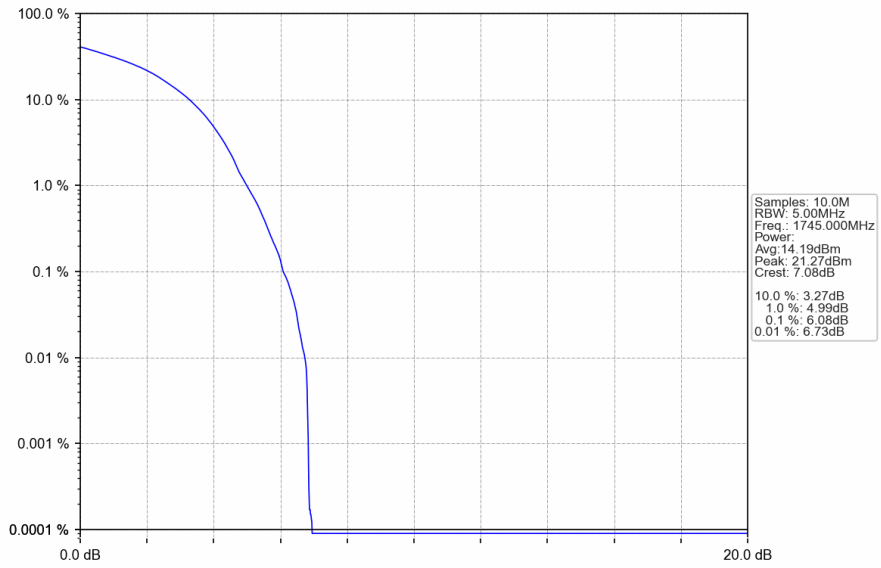
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM QPSK\_1775MHz\_Outer\_Full



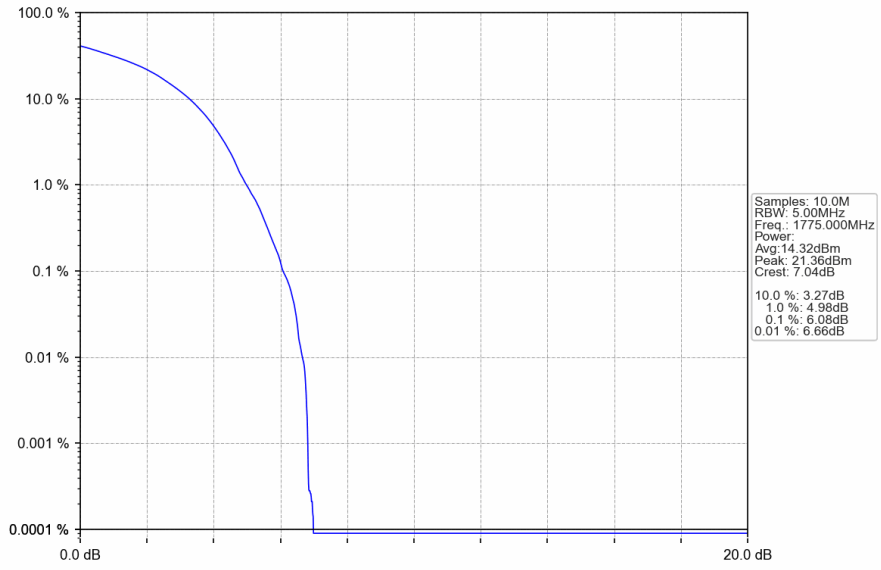
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 16 QAM\_1715MHz\_Outer\_Full



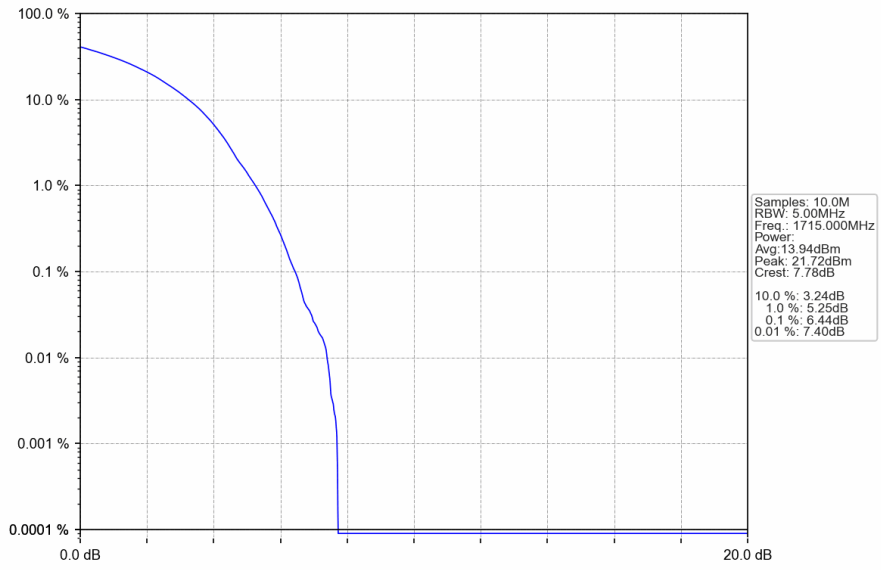
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 16 QAM\_1745MHz\_Outer\_Full



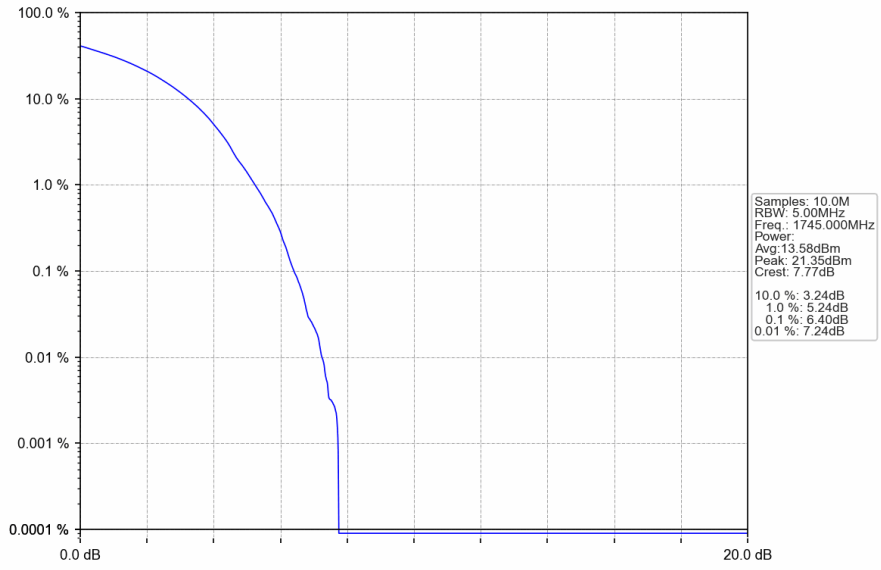
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 16 QAM\_1775MHz\_Outer\_Full



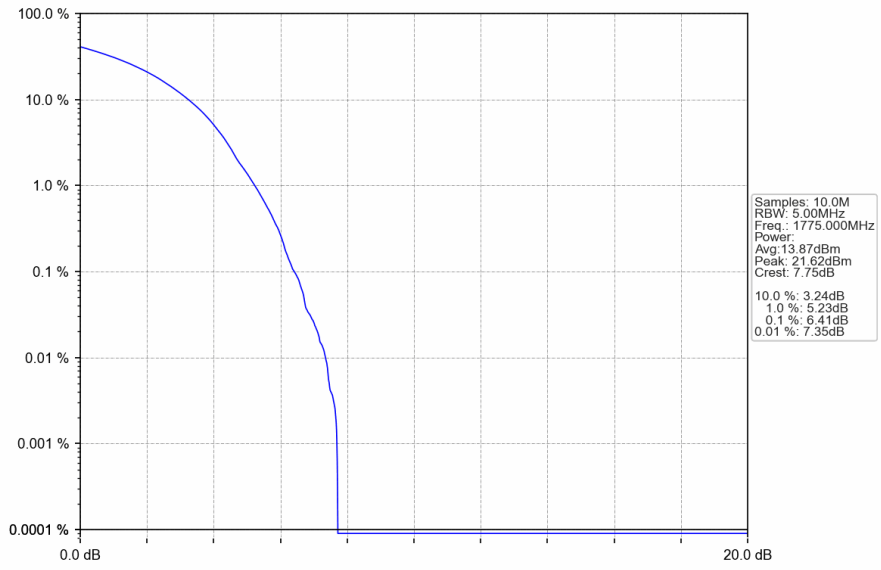
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 64 QAM\_1715MHz\_Outer\_Full



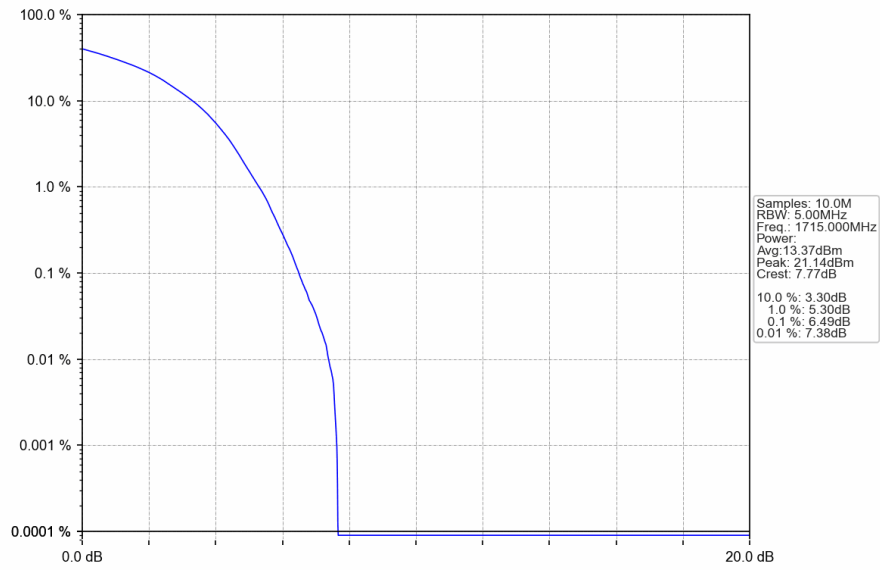
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 64 QAM\_1745MHz\_Outer\_Full



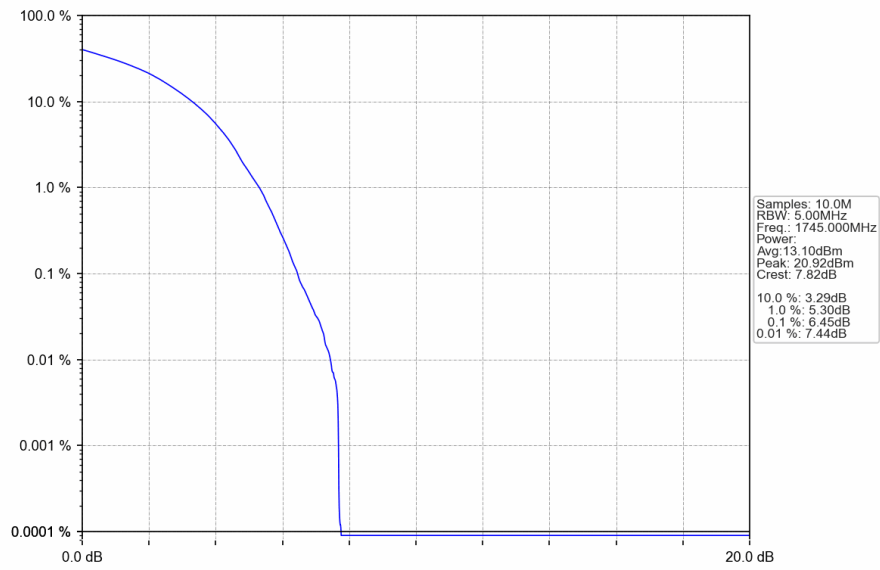
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 64 QAM\_1775MHz\_Outer\_Full



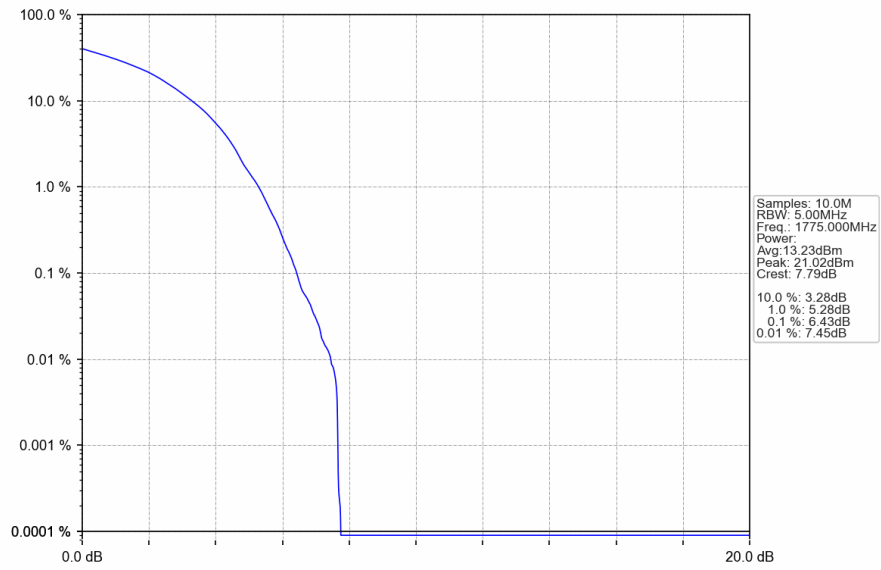
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 256 QAM\_1715MHz\_Outer\_Full



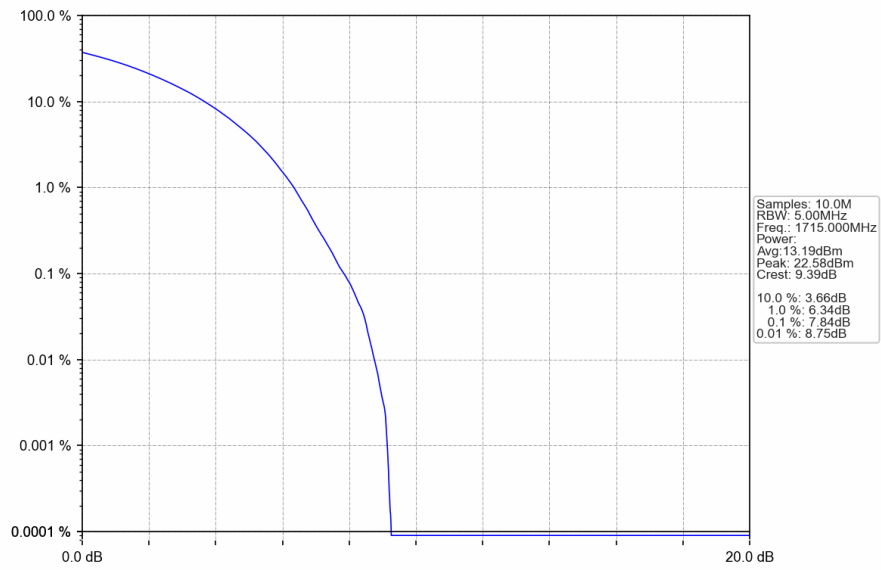
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 256 QAM\_1745MHz\_Outer\_Full



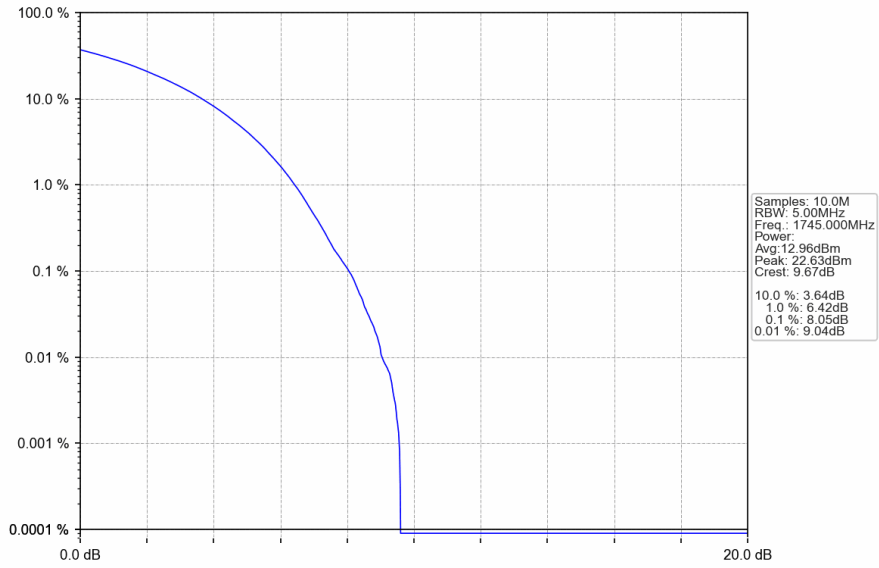
n66\_15kHz\_SISO\_NTNV\_10MHz\_DFT-s-OFDM 256 QAM\_1775MHz\_Outer\_Full



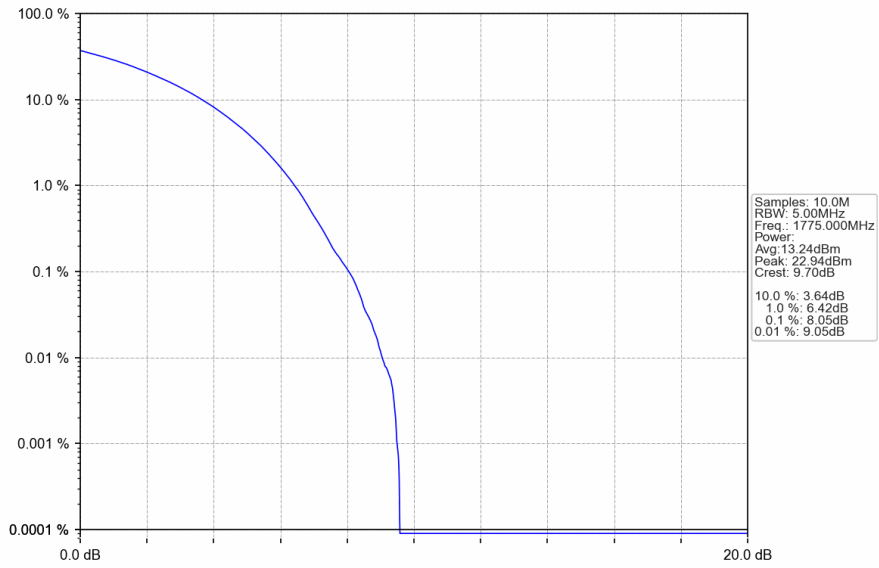
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM QPSK\_1715MHz\_Outer\_Full



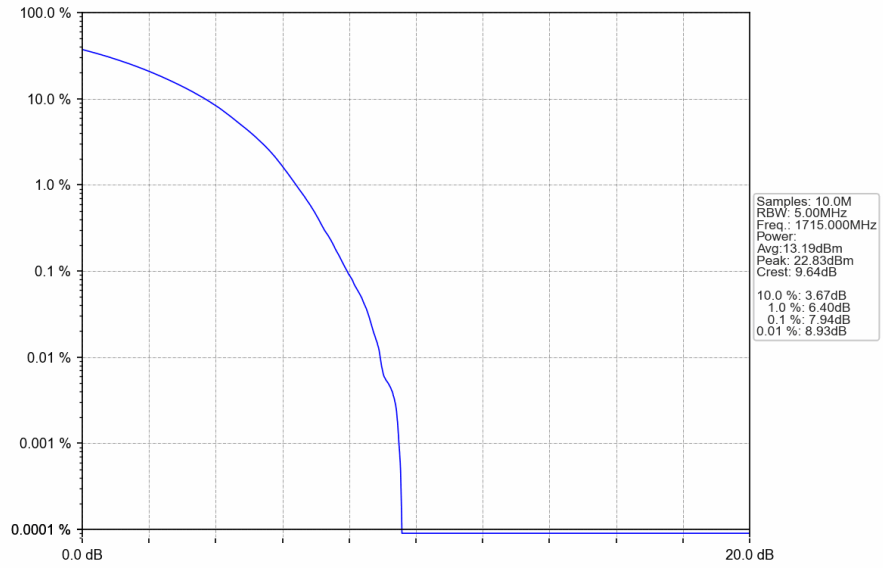
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM QPSK\_1745MHz\_Outer\_Full



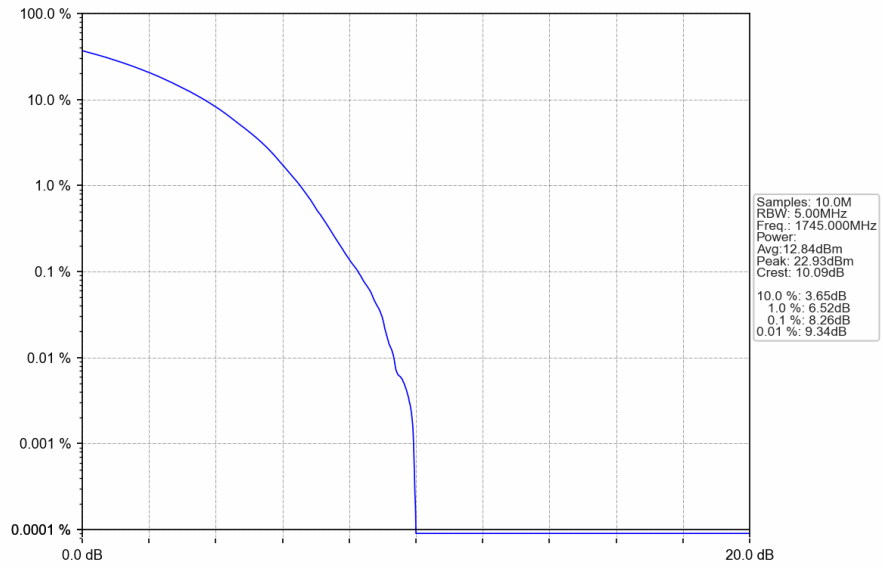
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM QPSK\_1775MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 16 QAM\_1715MHz\_Outer\_Full

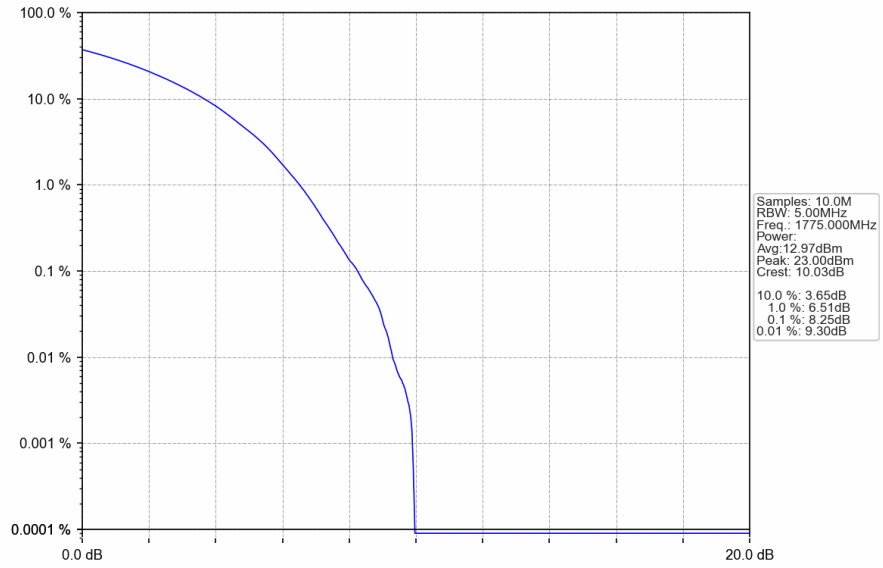


n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 16 QAM\_1745MHz\_Outer\_Full

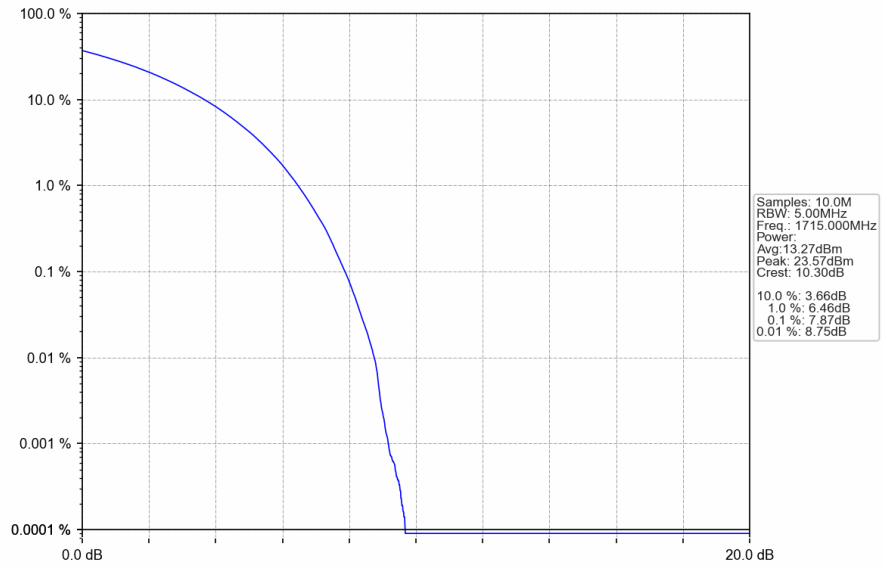




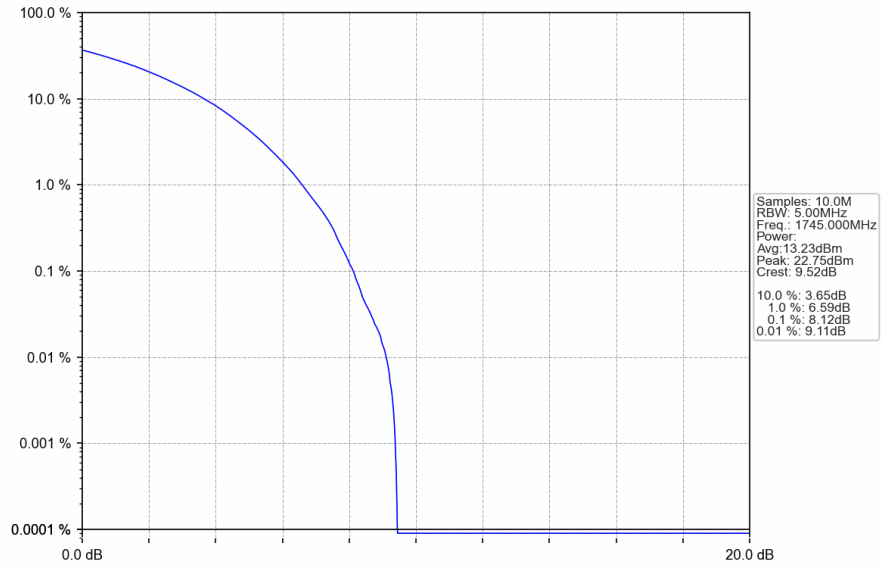
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 16 QAM\_1775MHz\_Outer\_Full



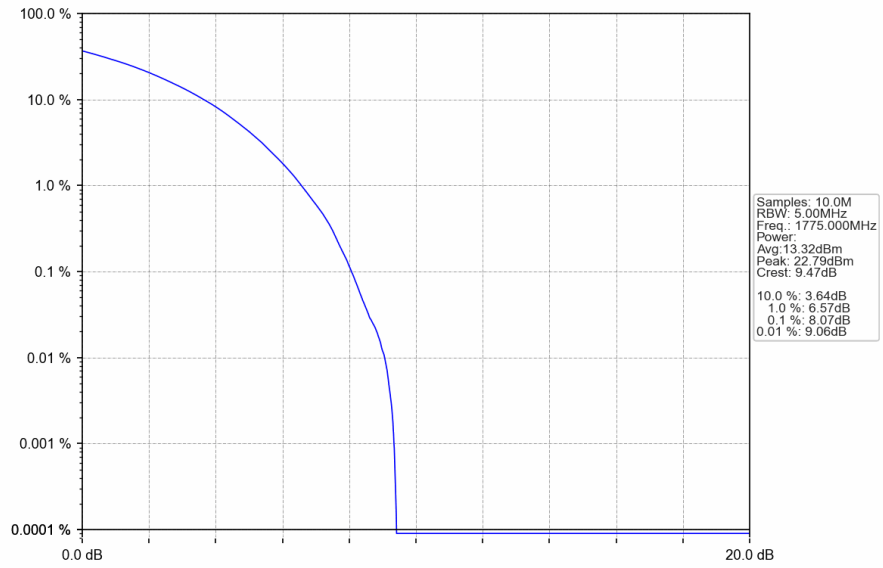
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 64 QAM\_1715MHz\_Outer\_Full



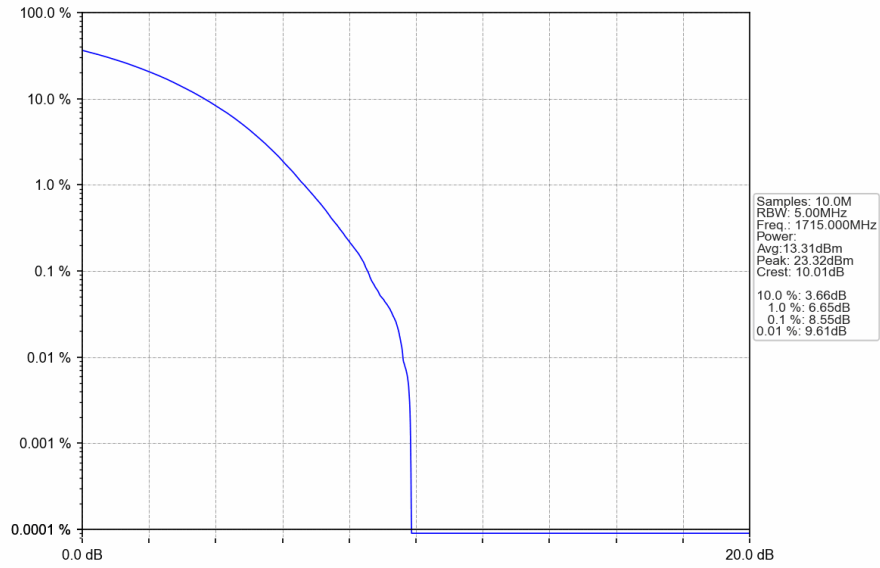
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 64 QAM\_1745MHz\_Outer\_Full



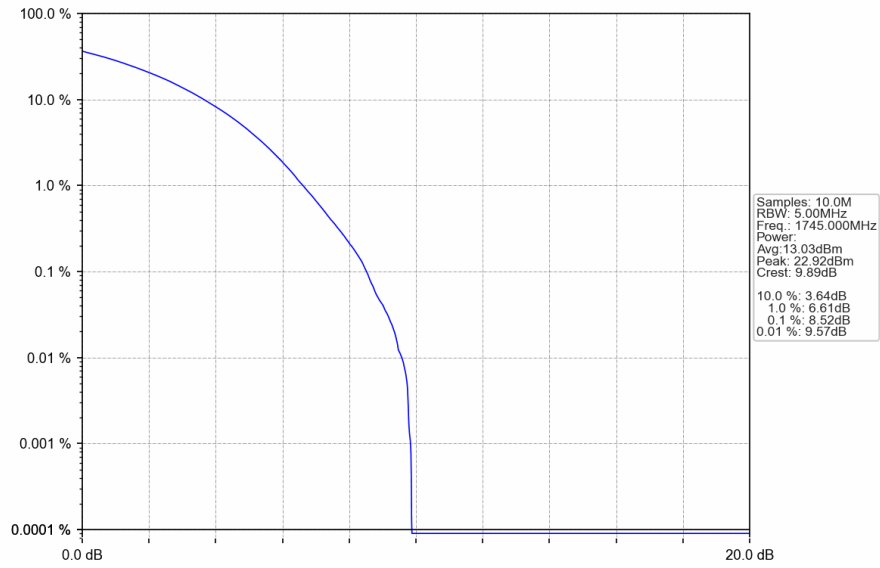
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 64 QAM\_1775MHz\_Outer\_Full



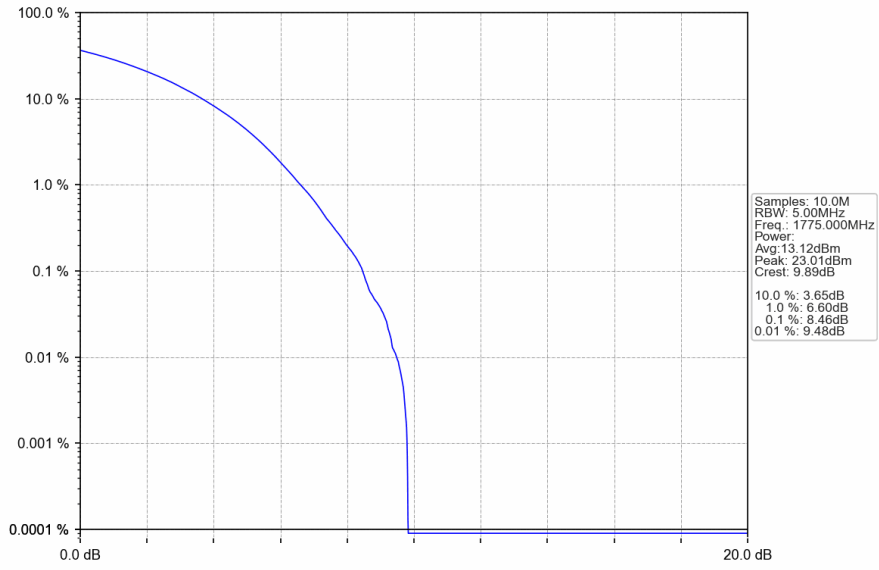
n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 256 QAM\_1715MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM 256 QAM\_1745MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_10MHz\_CP-OFDM\_256\_QAM\_1775MHz\_Outer\_Full

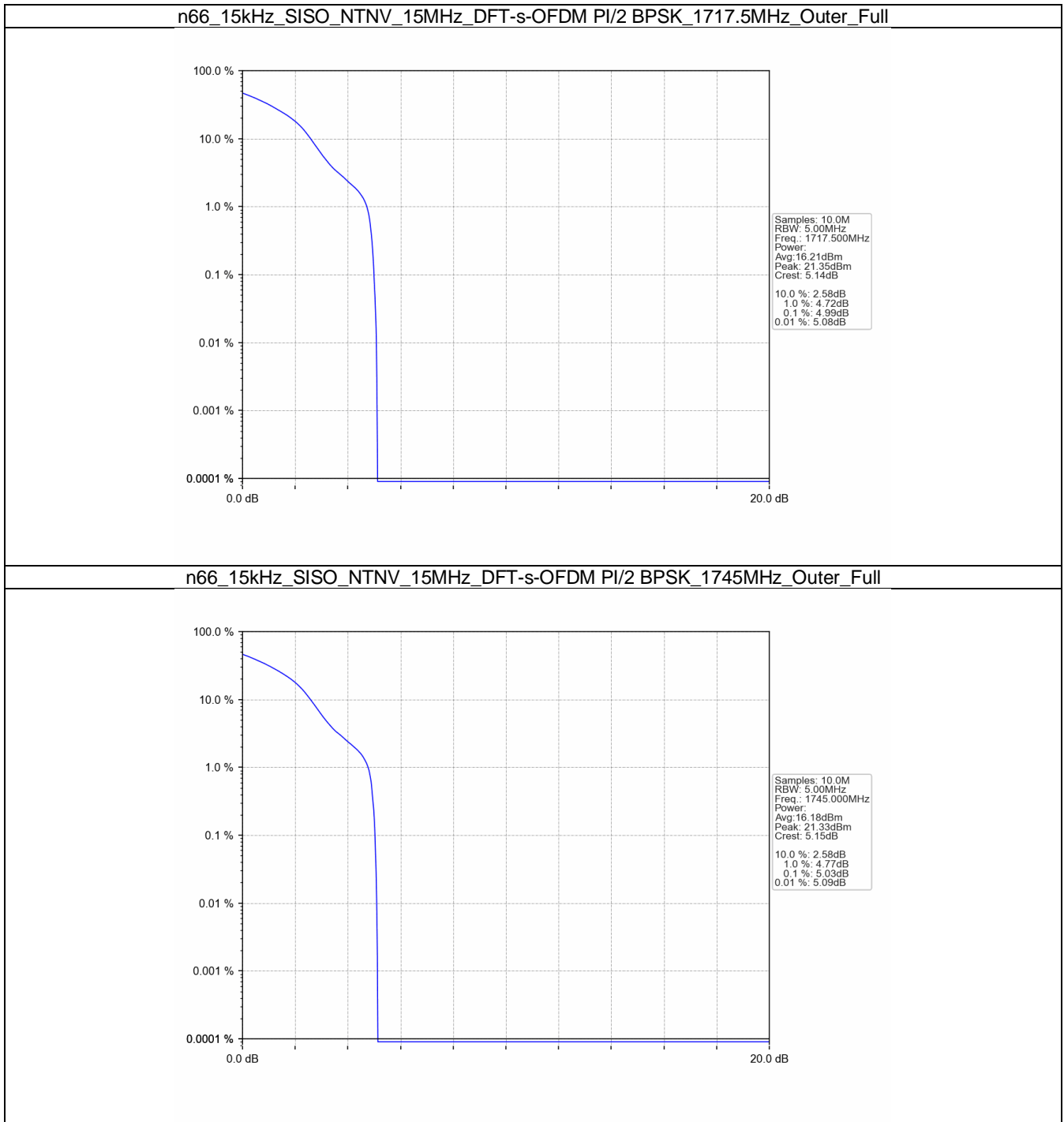


### 4.3 15k\_SISO\_15MHz\_NTNV

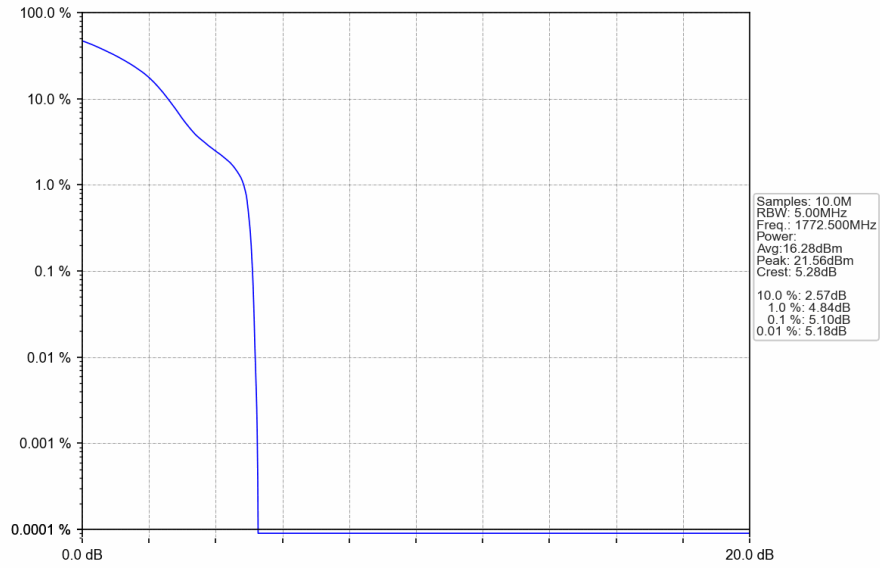
#### 4.3.1 Test Result

| 5G NR n66 SCS=15kHz SISO 15MHz NTN |                 |               |                          |      |     |       |         |
|------------------------------------|-----------------|---------------|--------------------------|------|-----|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation | Peak-Average Ratio (dBm) |      |     |       | Verdict |
|                                    |                 |               | Ant1                     | Ant2 | Sum | Limit |         |
| DFT-s-OFDM PI/2 BPSK               | 1717.5          | Outer_Full    | 4.99                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 5.03                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 5.10                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM QPSK                    | 1717.5          | Outer_Full    | 5.68                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 5.71                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 5.68                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 16 QAM                  | 1717.5          | Outer_Full    | 6.77                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.79                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 6.78                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 64 QAM                  | 1717.5          | Outer_Full    | 6.81                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.81                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 6.81                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 256 QAM                 | 1717.5          | Outer_Full    | 6.93                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.92                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 6.90                     | /    | /   | <=13  | Pass    |
| CP-OFDM QPSK                       | 1717.5          | Outer_Full    | 7.97                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.14                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 7.94                     | /    | /   | <=13  | Pass    |
| CP-OFDM 16 QAM                     | 1717.5          | Outer_Full    | 8.29                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.27                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 8.24                     | /    | /   | <=13  | Pass    |
| CP-OFDM 64 QAM                     | 1717.5          | Outer_Full    | 8.21                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.20                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 8.19                     | /    | /   | <=13  | Pass    |
| CP-OFDM 256 QAM                    | 1717.5          | Outer_Full    | 8.35                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.30                     | /    | /   | <=13  | Pass    |
|                                    | 1772.5          | Outer_Full    | 8.25                     | /    | /   | <=13  | Pass    |

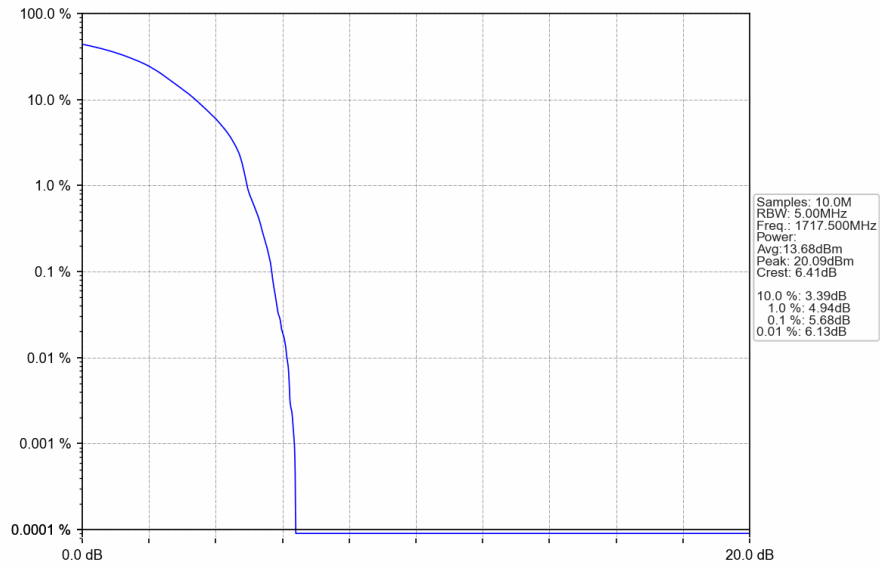
### 4.3.2 Test Graph



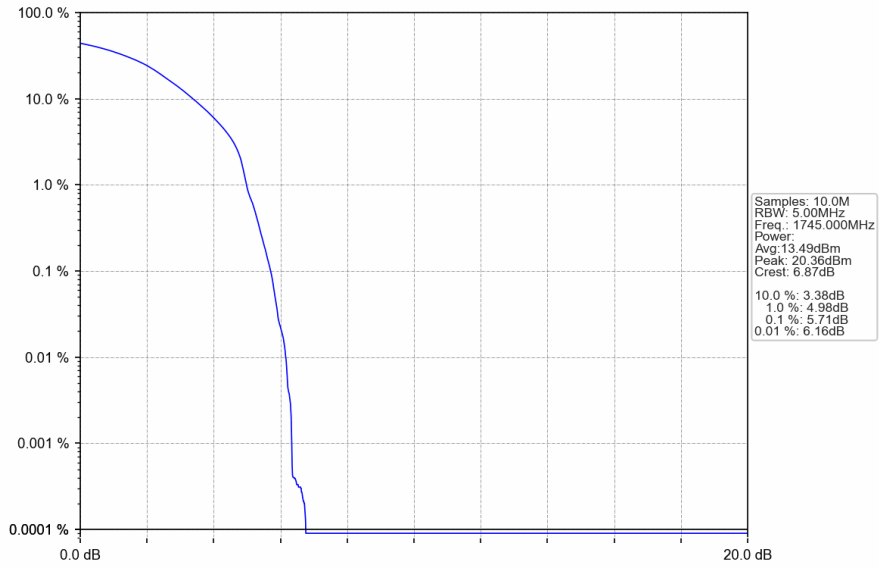
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM PI/2 BPSK\_1772.5MHz\_Outer\_Full



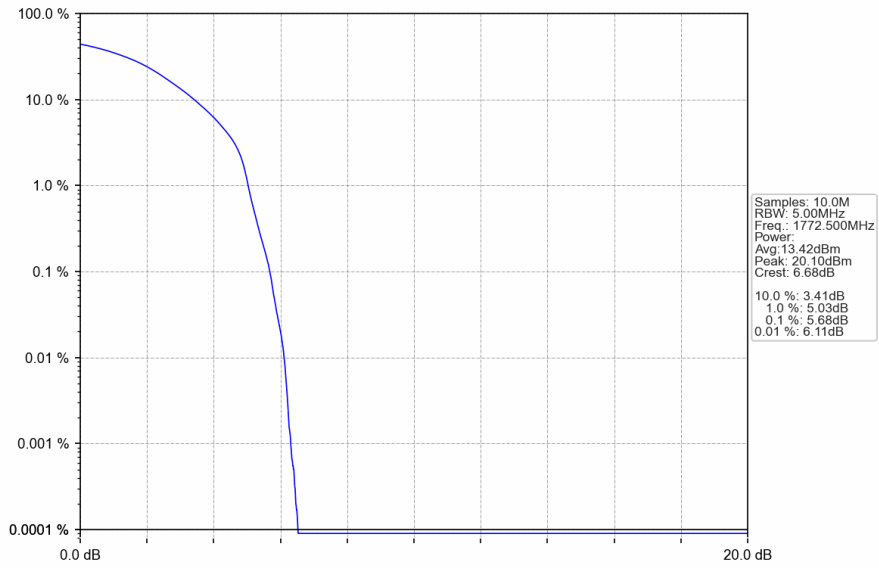
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM QPSK\_1717.5MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM QPSK\_1745MHz\_Outer\_Full

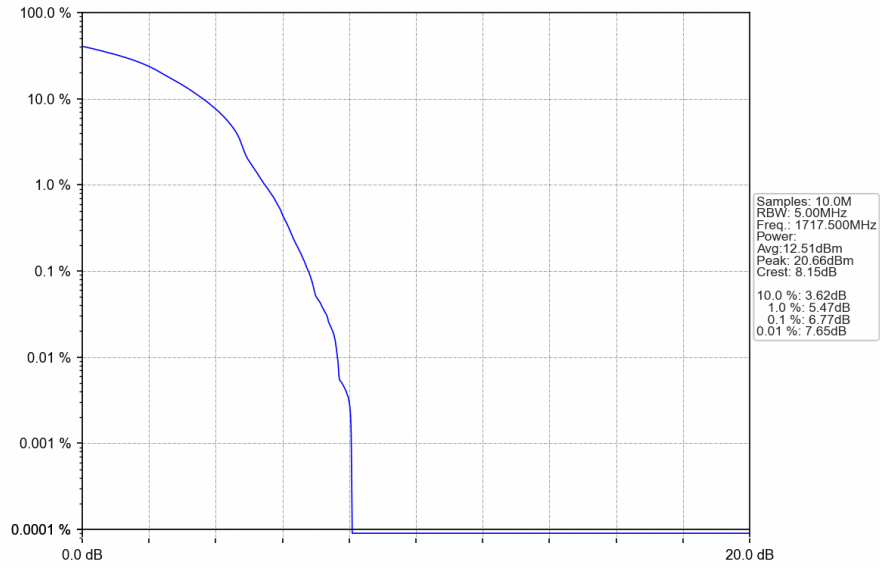


n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM QPSK\_1772.5MHz\_Outer\_Full

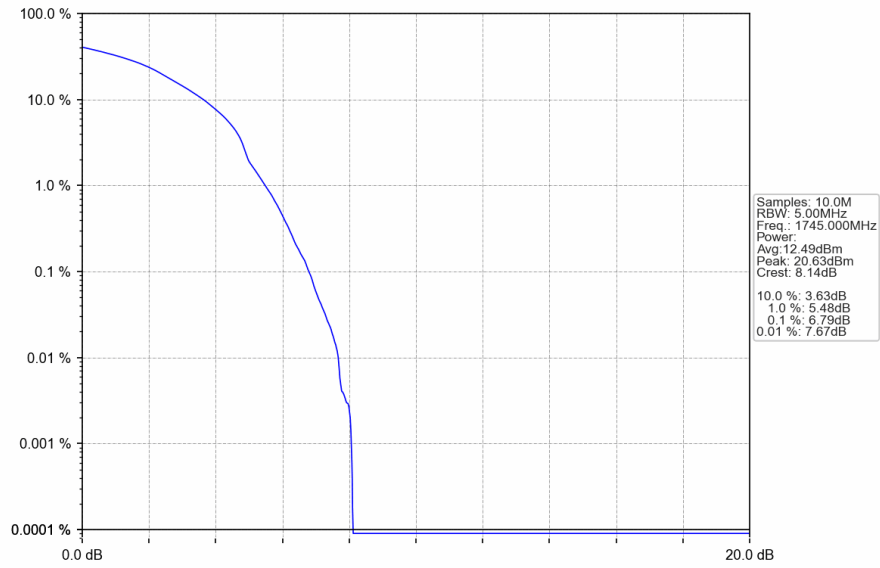




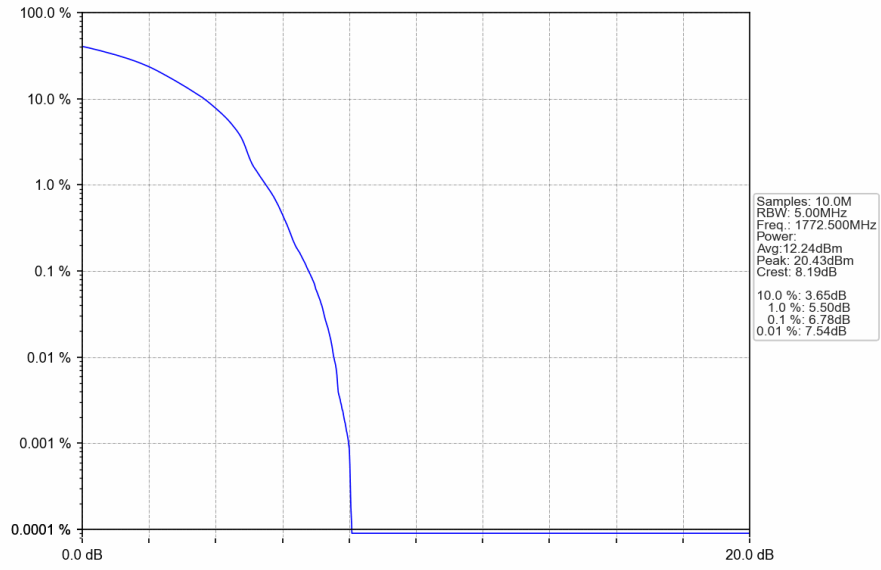
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM\_16 QAM\_1717.5MHz\_Outer\_Full



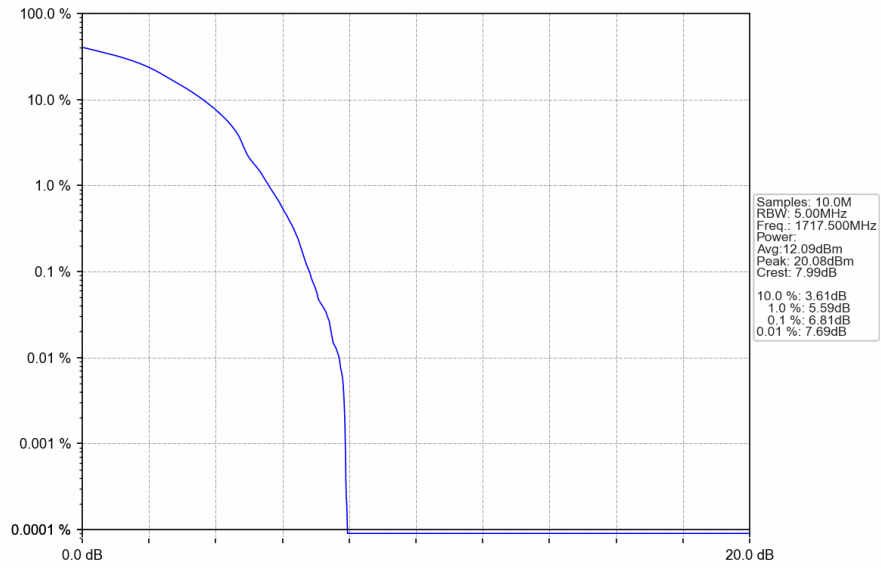
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM\_16 QAM\_1745MHz\_Outer\_Full



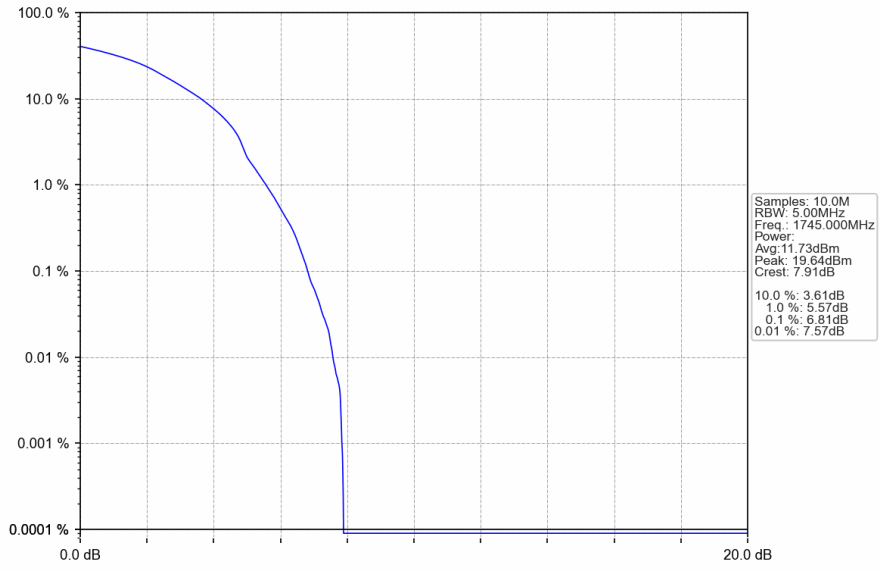
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 16 QAM\_1772.5MHz\_Outer\_Full



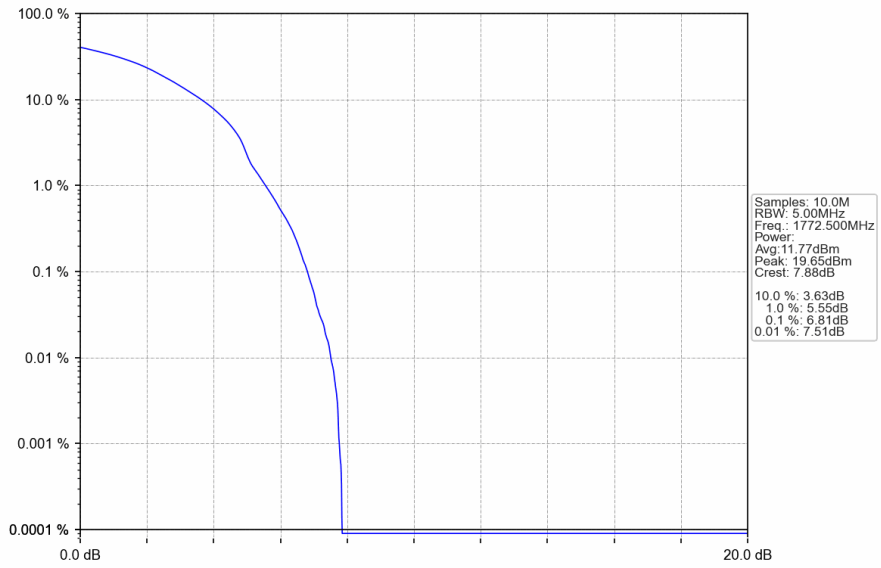
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 64 QAM\_1717.5MHz\_Outer\_Full



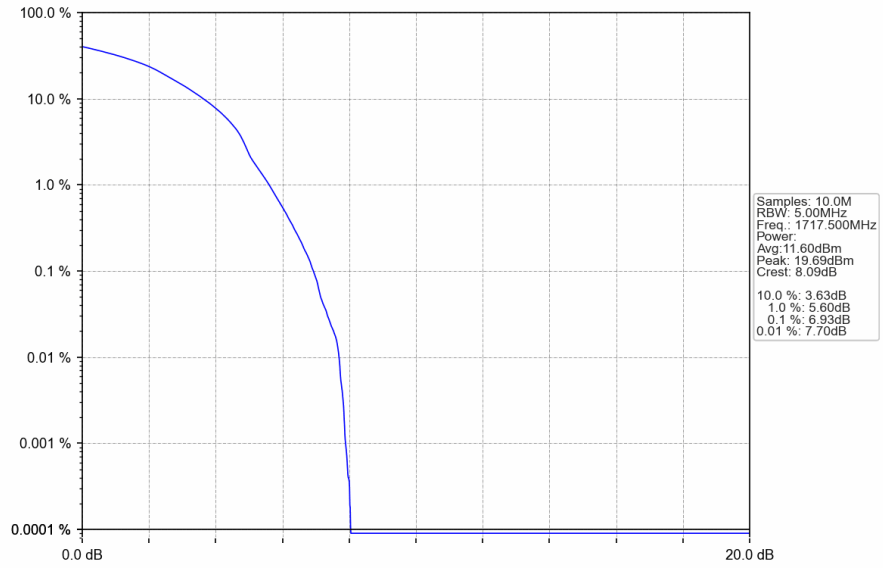
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 64 QAM\_1745MHz\_Outer\_Full



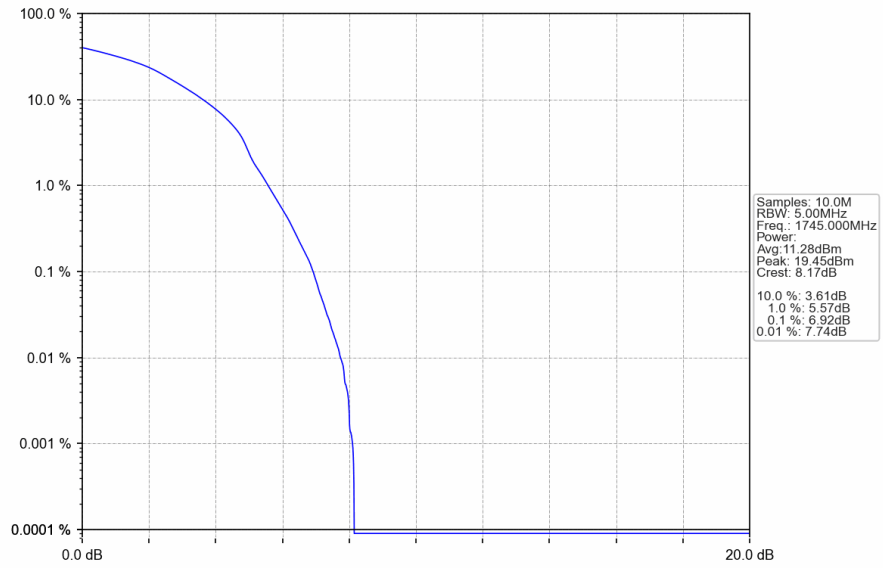
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 64 QAM\_1772.5MHz\_Outer\_Full



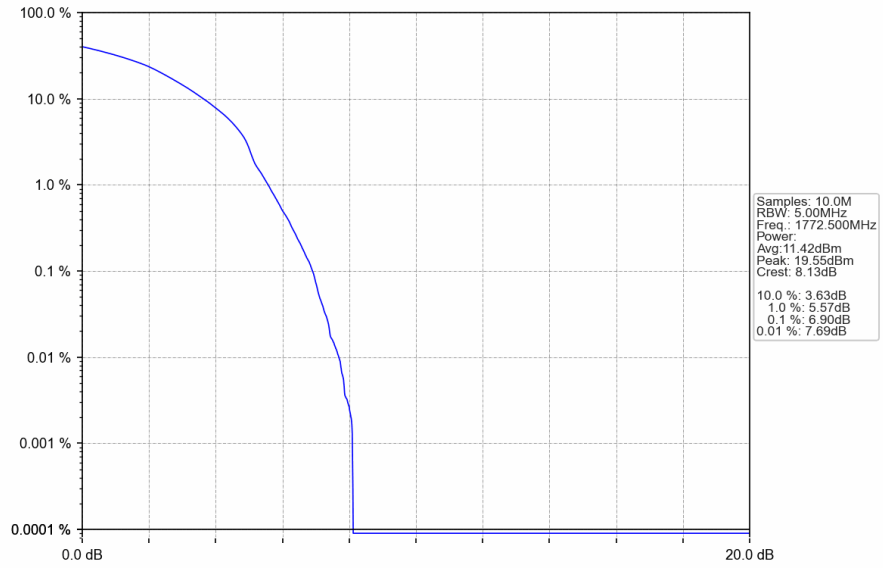
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 256 QAM\_1717.5MHz\_Outer\_Full



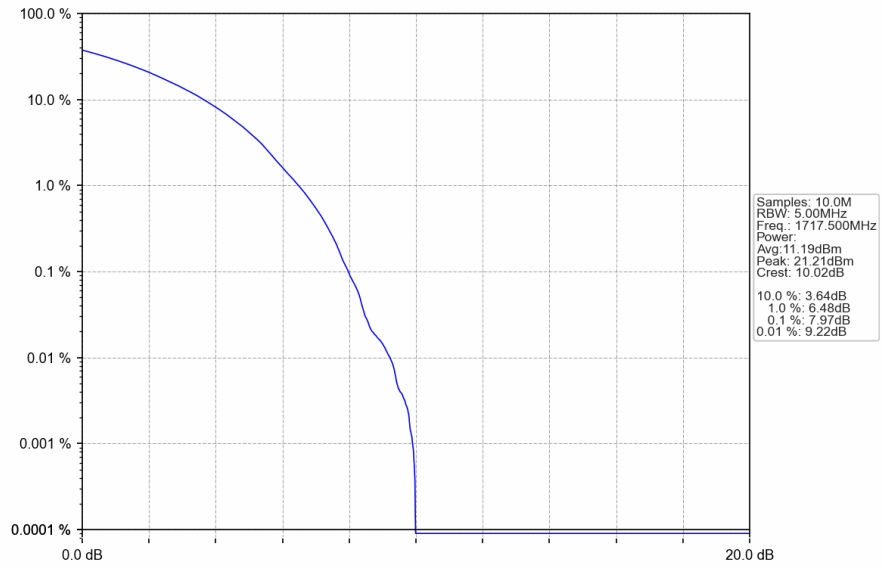
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 256 QAM\_1745MHz\_Outer\_Full



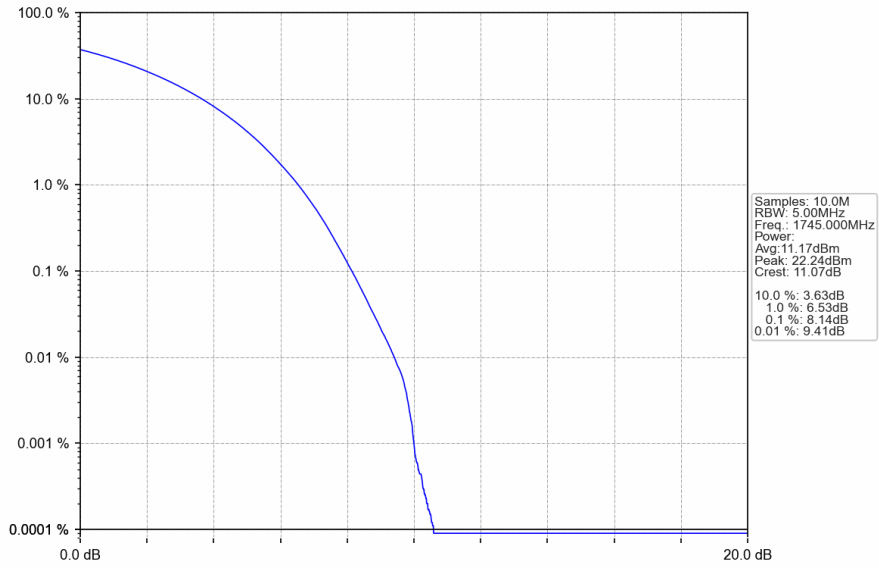
n66\_15kHz\_SISO\_NTNV\_15MHz\_DFT-s-OFDM 256 QAM\_1772.5MHz\_Outer\_Full



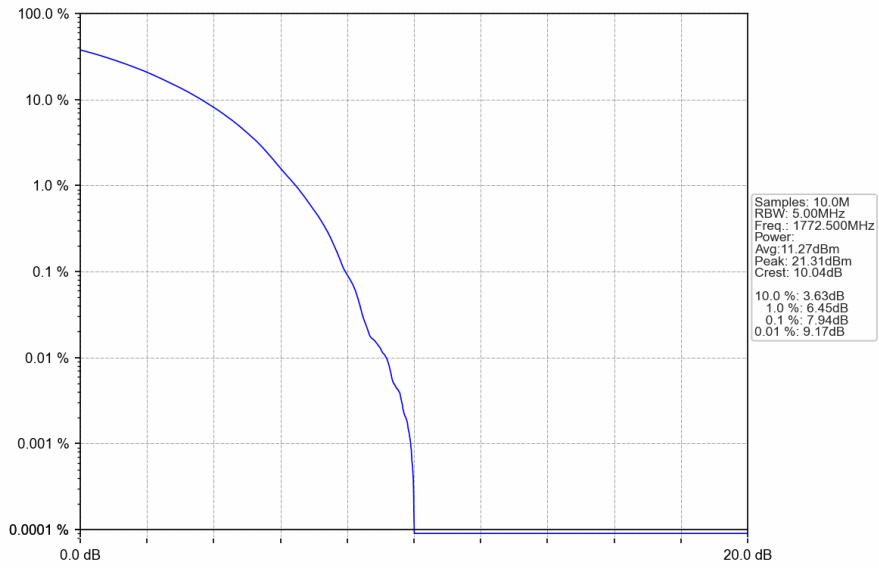
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM QPSK\_1717.5MHz\_Outer\_Full



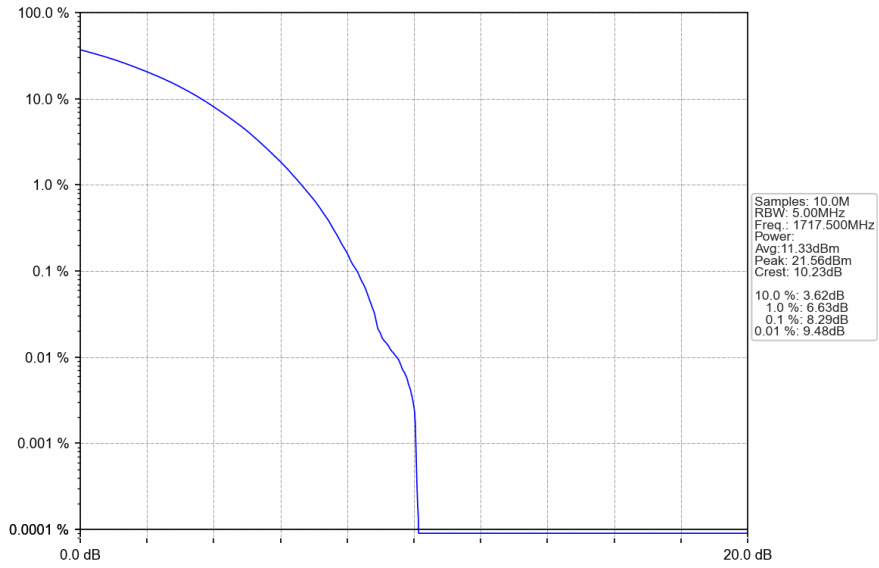
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM QPSK\_1745MHz\_Outer\_Full



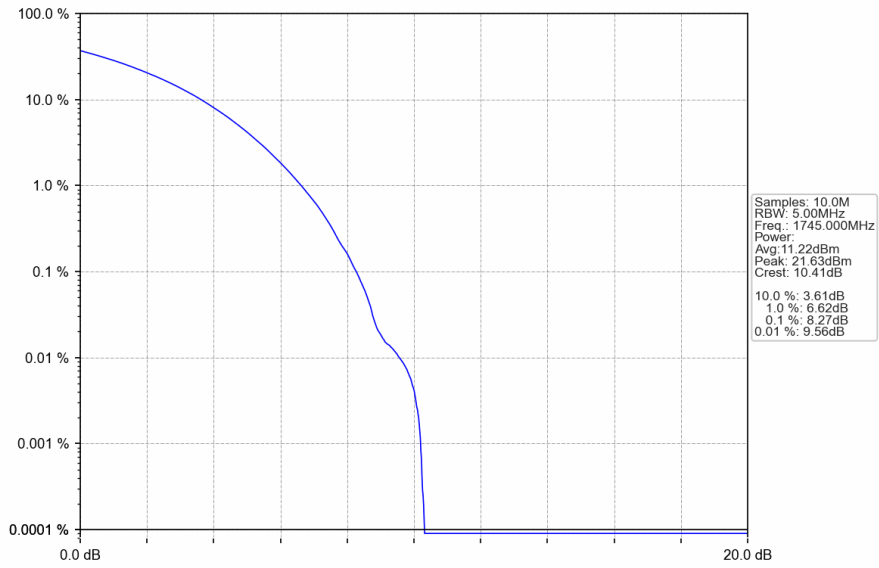
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM QPSK\_1772.5MHz\_Outer\_Full



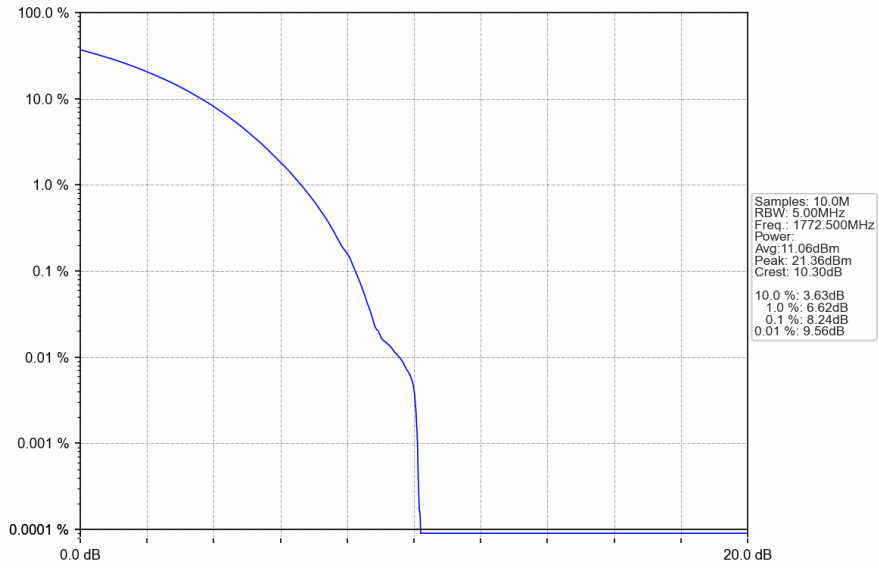
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 16 QAM\_1717.5MHz\_Outer\_Full



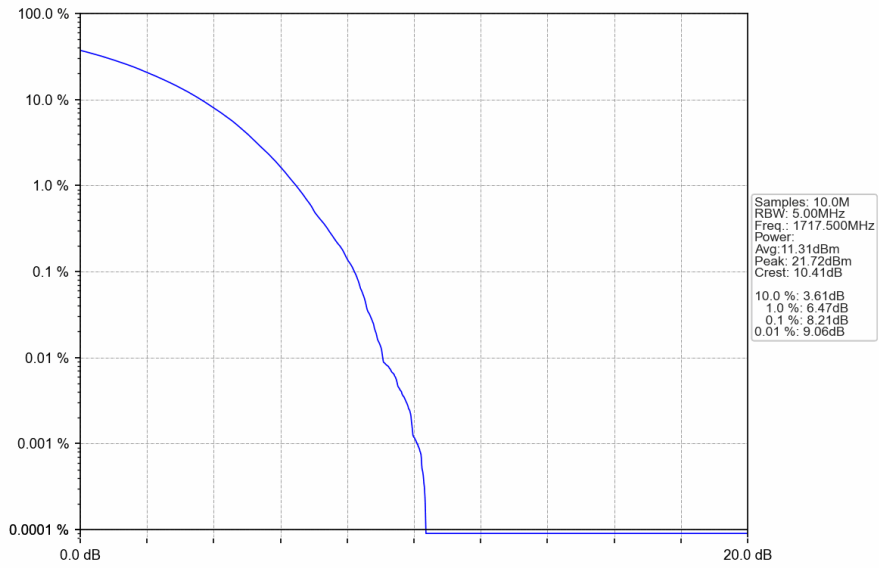
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 16 QAM\_1745MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 16 QAM\_1772.5MHz\_Outer\_Full

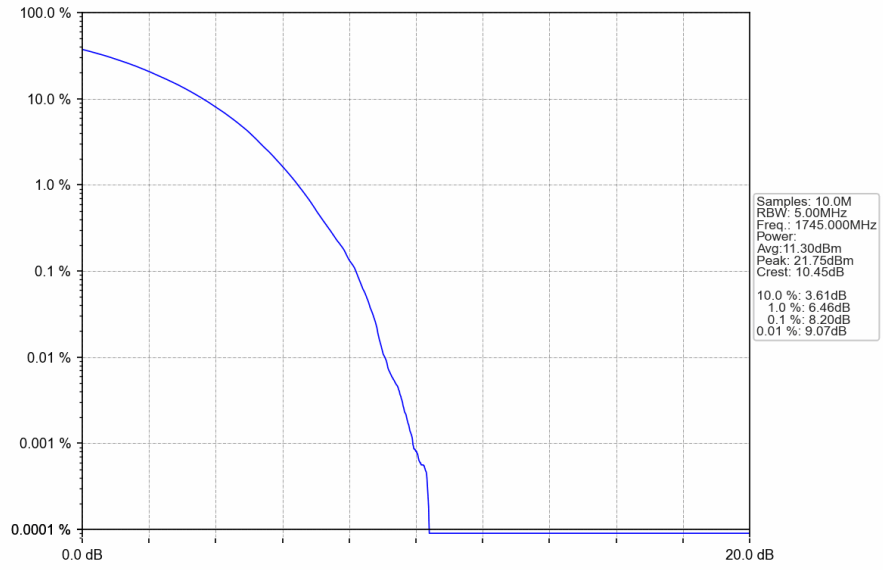


n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 64 QAM\_1717.5MHz\_Outer\_Full

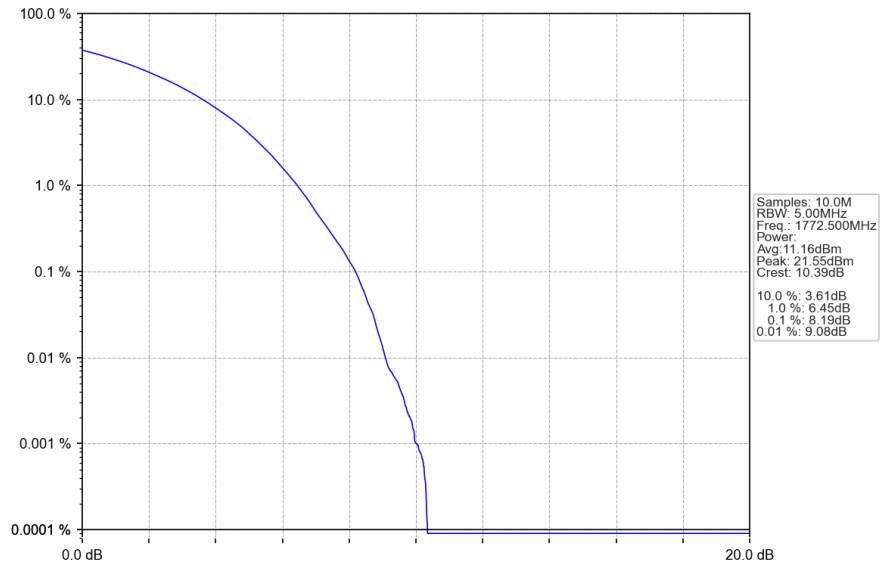




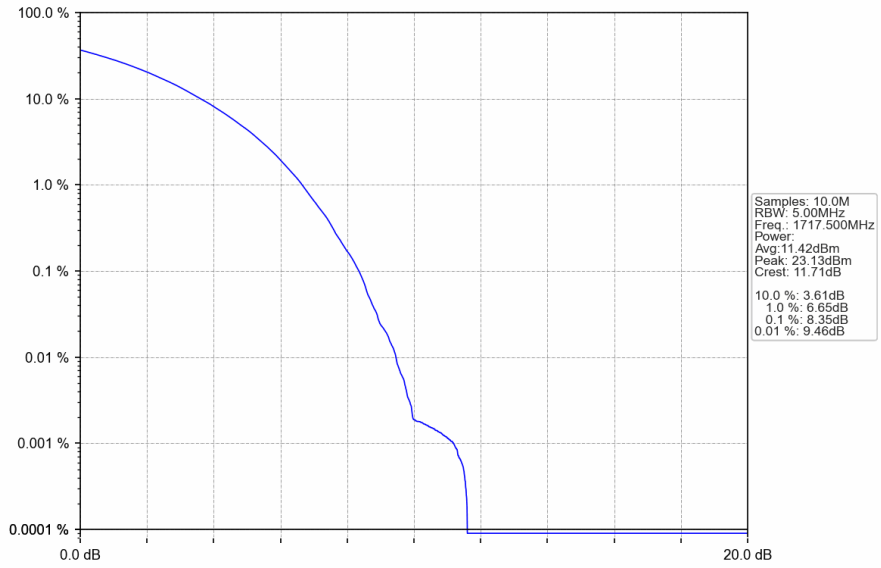
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 64 QAM\_1745MHz\_Outer\_Full



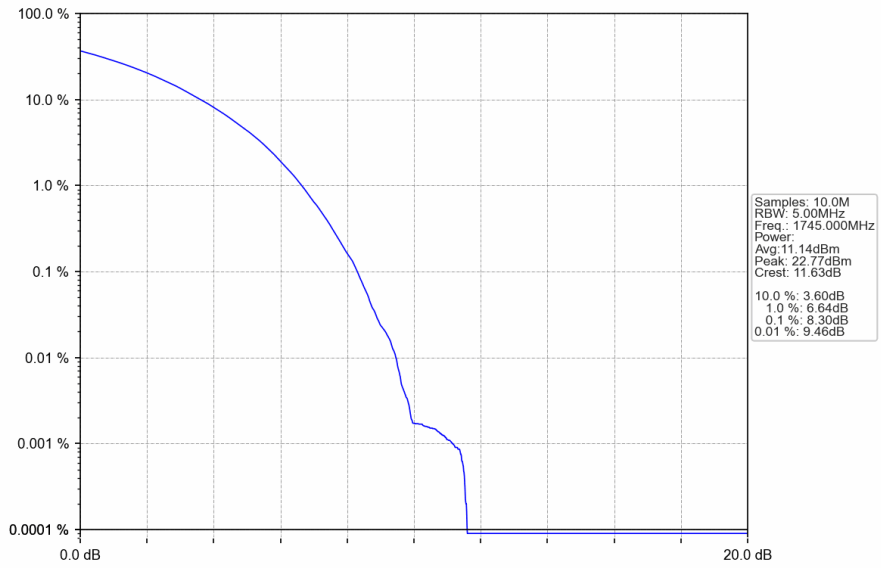
n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 64 QAM\_1772.5MHz\_Outer\_Full

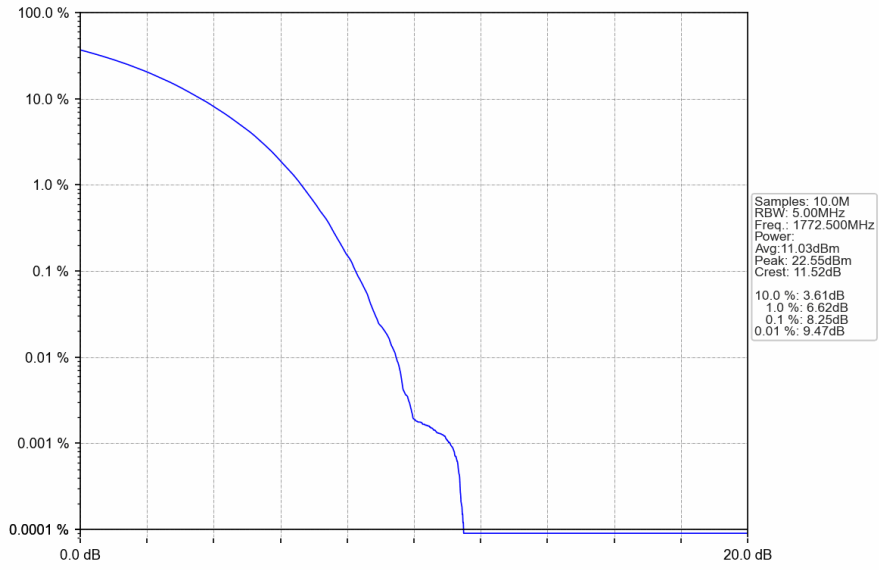


n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 256 QAM\_1717.5MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_15MHz\_CP-OFDM 256 QAM\_1745MHz\_Outer\_Full





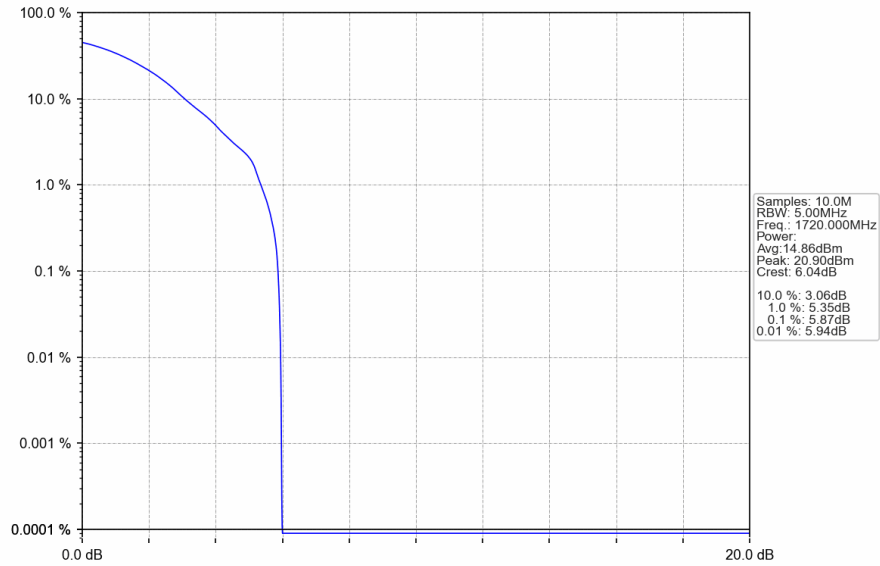
#### 4.4 15k\_SISO\_20MHz\_NTNV

##### 4.4.1 Test Result

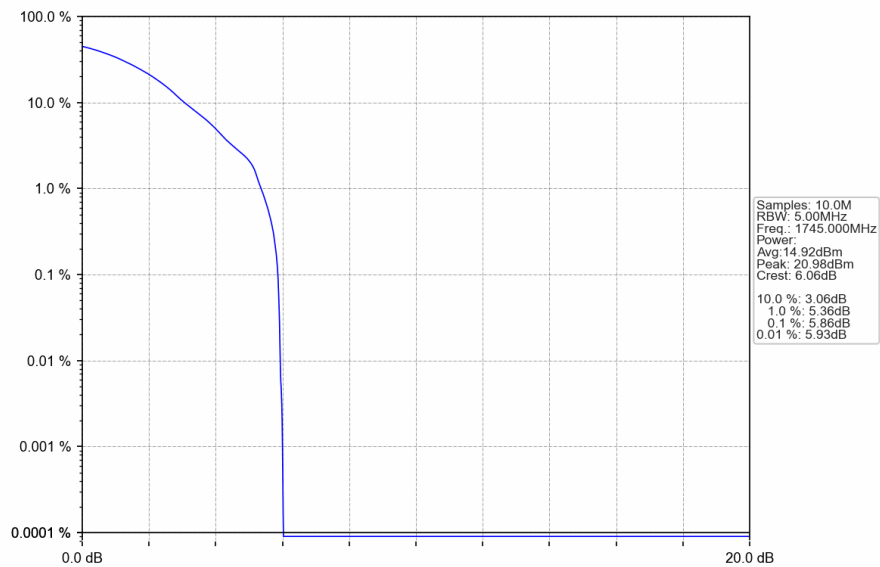
| 5G NR n66 SCS=15kHz SISO 20MHz NTN |                 |               |                          |      |     |       |         |
|------------------------------------|-----------------|---------------|--------------------------|------|-----|-------|---------|
| Modulation                         | Frequency (MHz) | RB Allocation | Peak-Average Ratio (dBm) |      |     |       | Verdict |
|                                    |                 |               | Ant1                     | Ant2 | Sum | Limit |         |
| DFT-s-OFDM PI/2 BPSK               | 1720            | Outer_Full    | 5.87                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 5.86                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 7.32                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM QPSK                    | 1720            | Outer_Full    | 6.35                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 6.42                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 6.41                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 16 QAM                  | 1720            | Outer_Full    | 7.06                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 7.03                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 6.92                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 64 QAM                  | 1720            | Outer_Full    | 7.41                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 7.43                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 7.39                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 256 QAM                 | 1720            | Outer_Full    | 7.31                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 7.27                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 7.25                     | /    | /   | <=13  | Pass    |
| CP-OFDM QPSK                       | 1720            | Outer_Full    | 8.12                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.11                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 8.07                     | /    | /   | <=13  | Pass    |
| CP-OFDM 16 QAM                     | 1720            | Outer_Full    | 8.29                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.27                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 8.22                     | /    | /   | <=13  | Pass    |
| CP-OFDM 64 QAM                     | 1720            | Outer_Full    | 8.57                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.51                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 8.49                     | /    | /   | <=13  | Pass    |
| CP-OFDM 256 QAM                    | 1720            | Outer_Full    | 8.22                     | /    | /   | <=13  | Pass    |
|                                    | 1745            | Outer_Full    | 8.24                     | /    | /   | <=13  | Pass    |
|                                    | 1770            | Outer_Full    | 8.23                     | /    | /   | <=13  | Pass    |

### 4.4.2 Test Graph

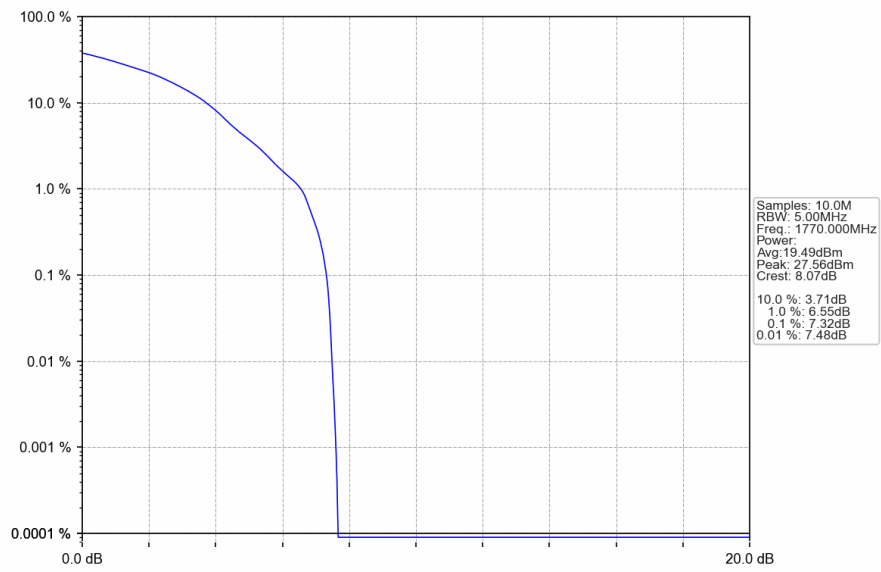
n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM PI/2 BPSK\_1720MHz\_Outer\_Full



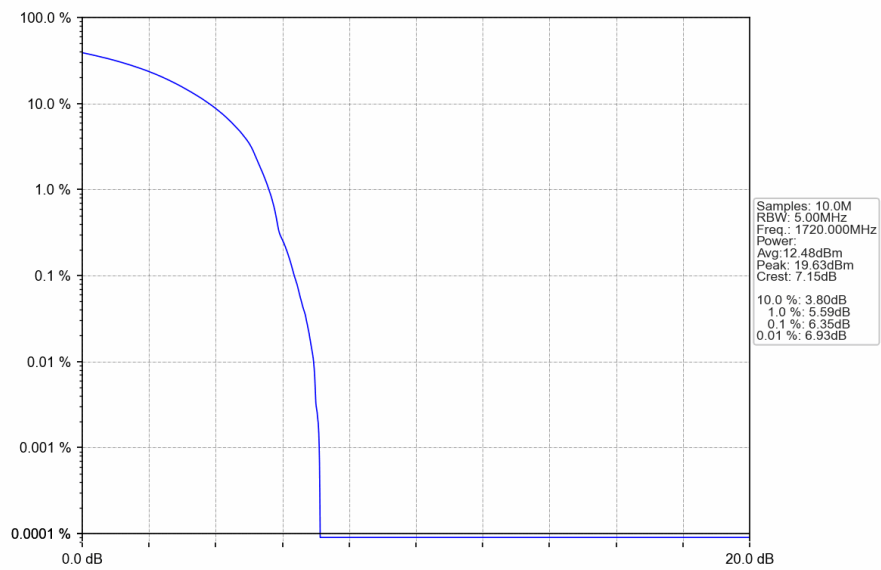
n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM PI/2 BPSK\_1745MHz\_Outer\_Full



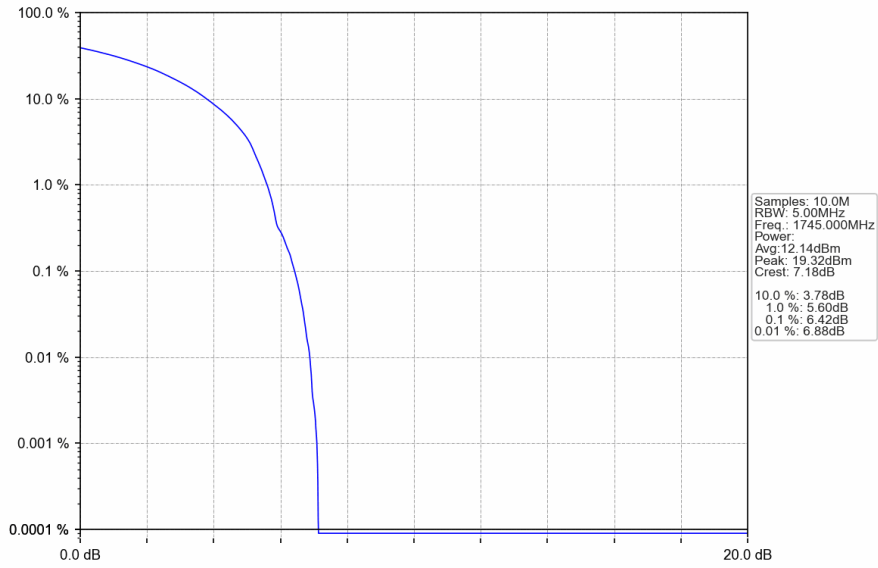
n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM PI/2 BPSK\_1770MHz\_Outer\_Full



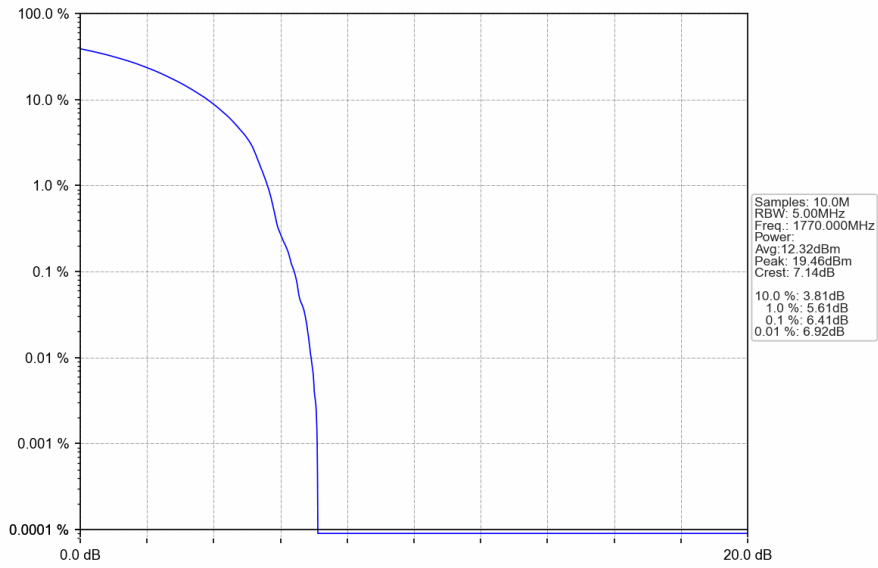
n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM QPSK\_1720MHz\_Outer\_Full



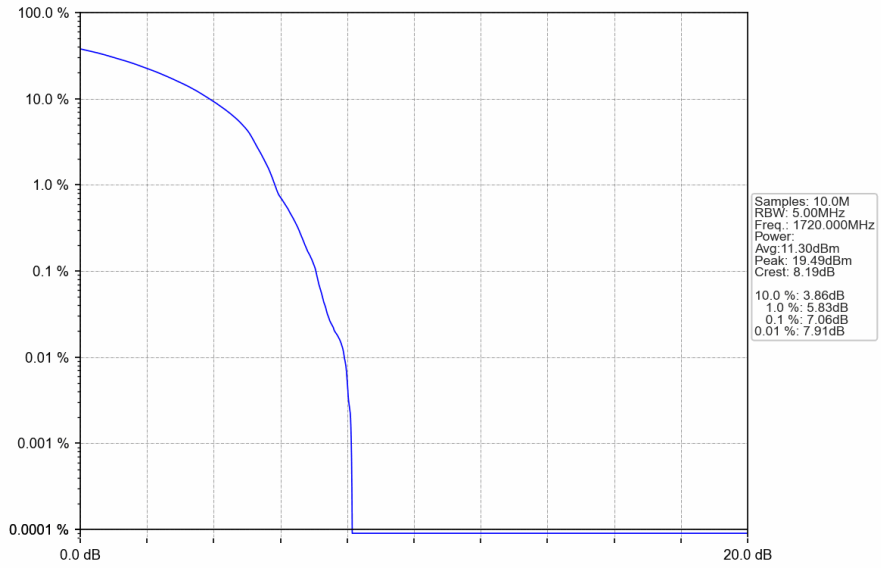
n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM QPSK\_1745MHz\_Outer\_Full



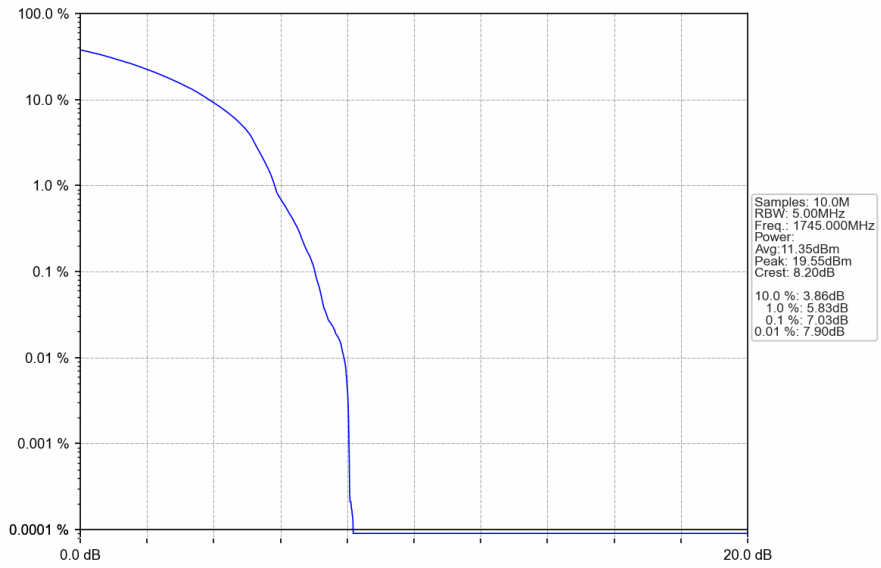
n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM QPSK\_1770MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_20MHz\_DFT-s-OFDM\_16QAM\_1720MHz\_Outer\_Full

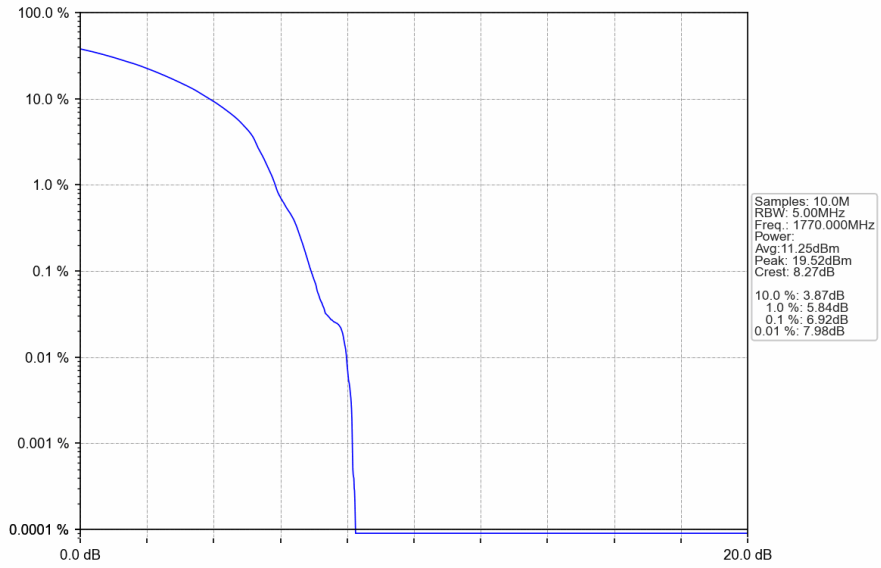


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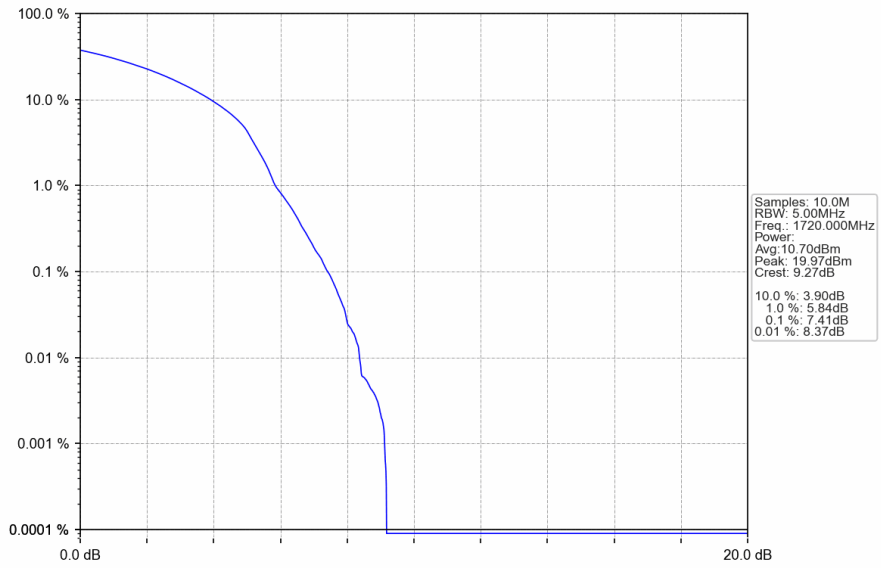




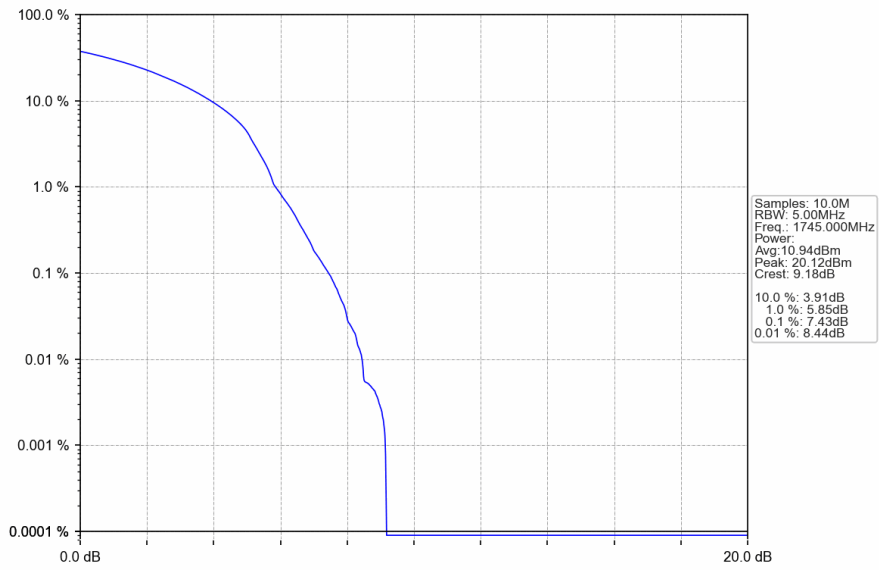
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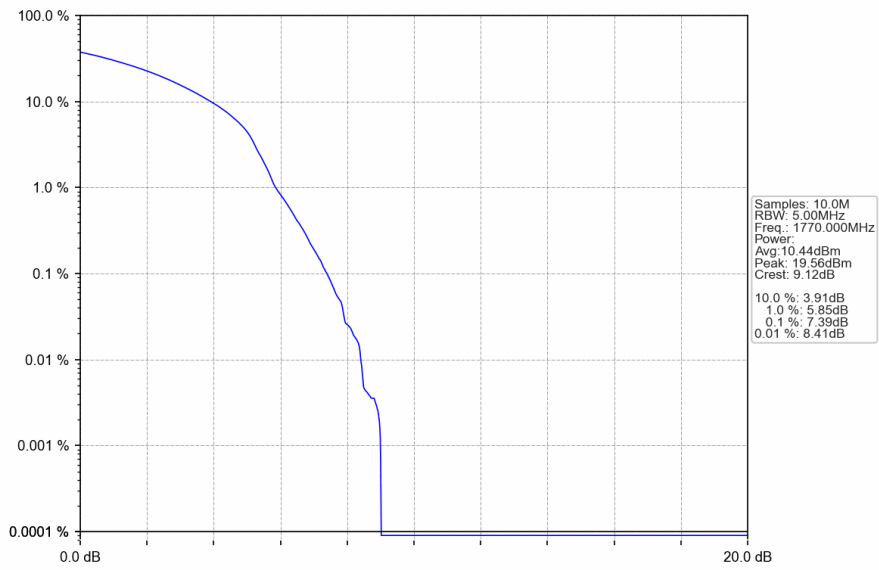
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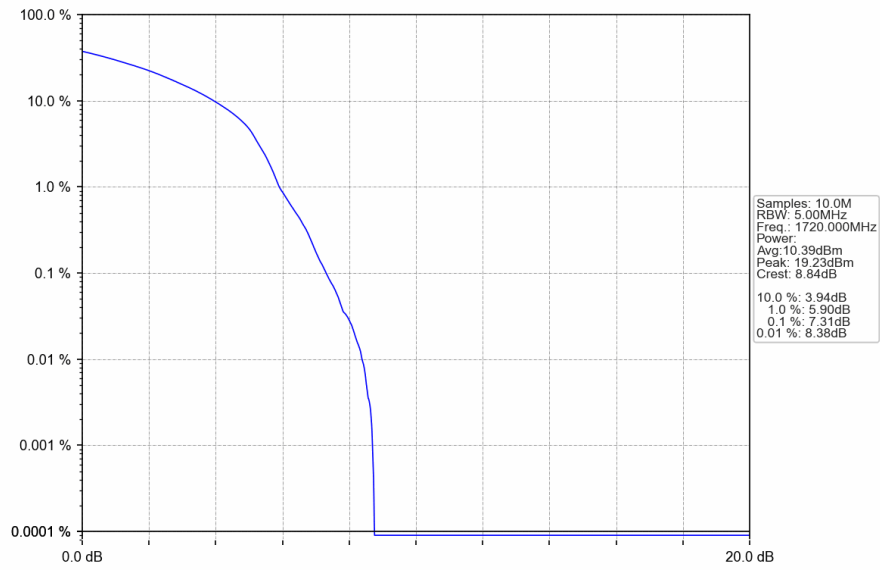
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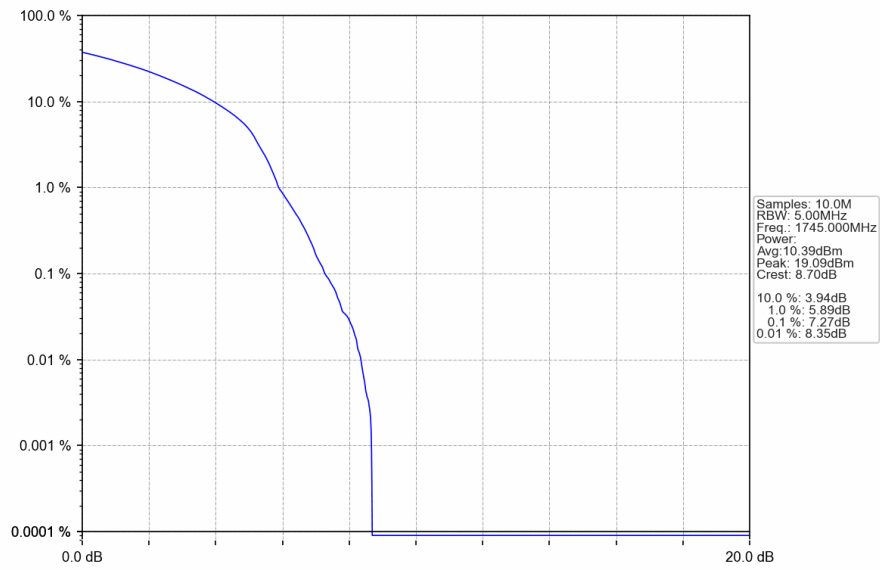
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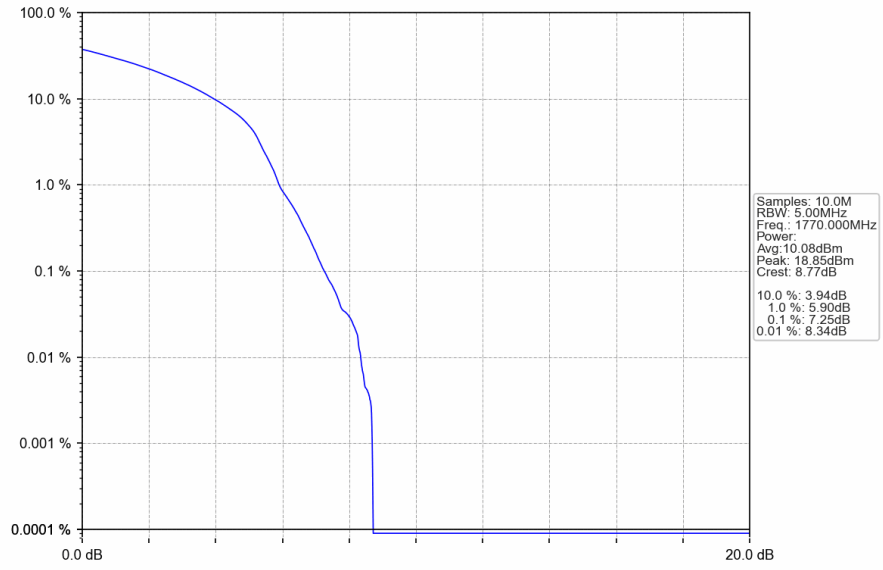
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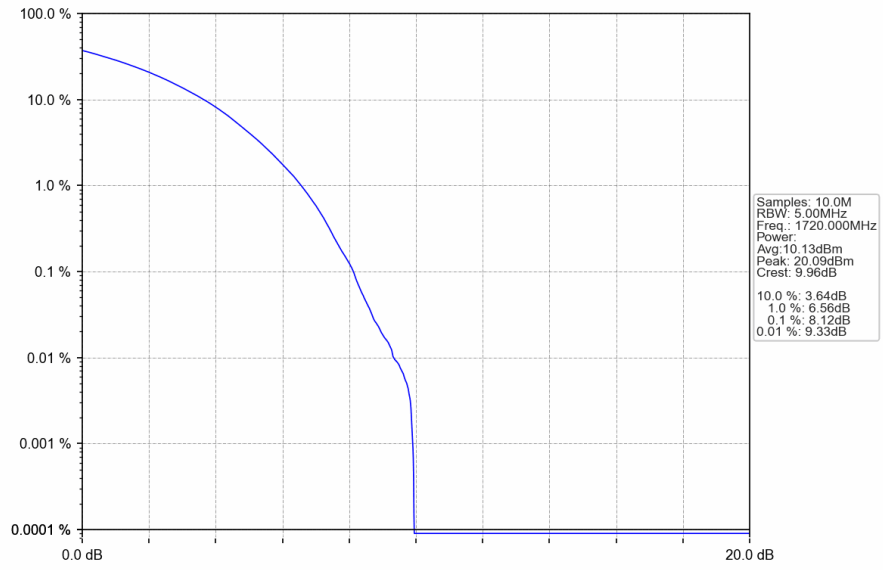
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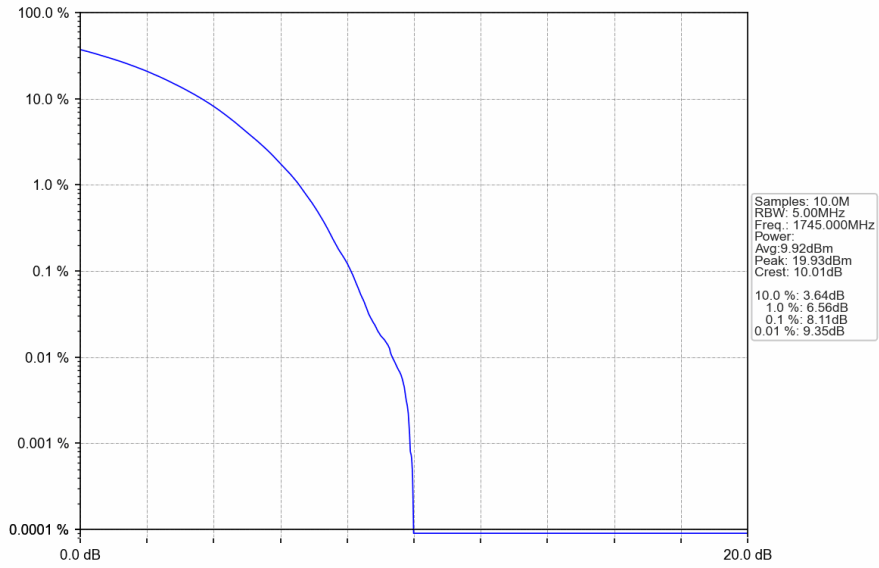
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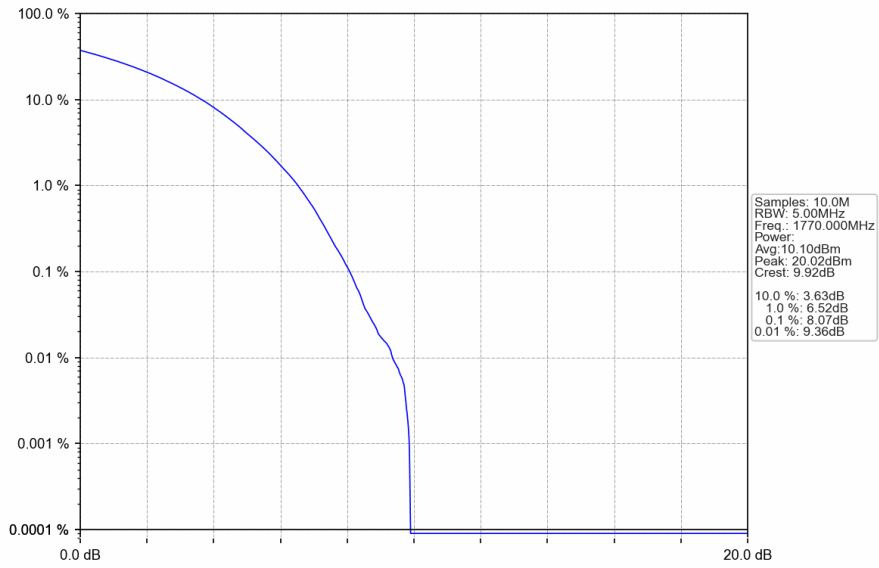
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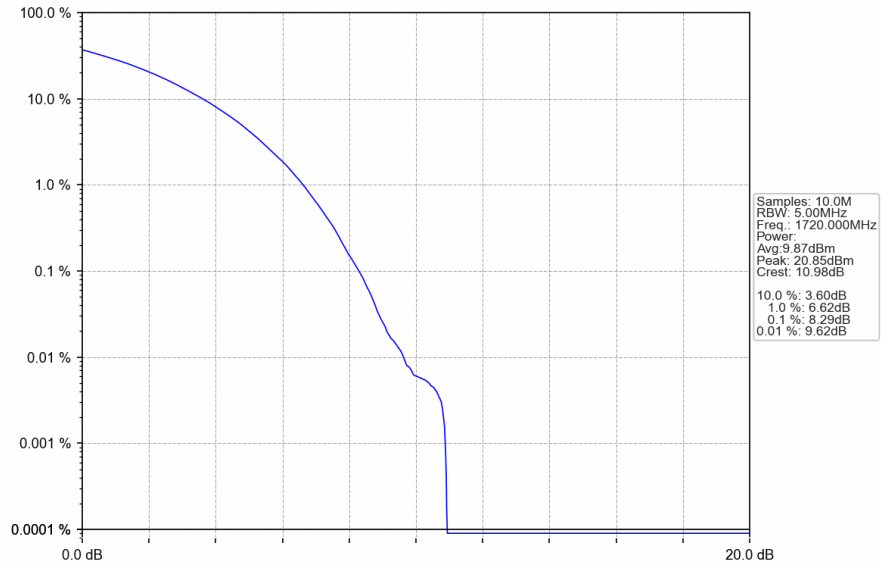
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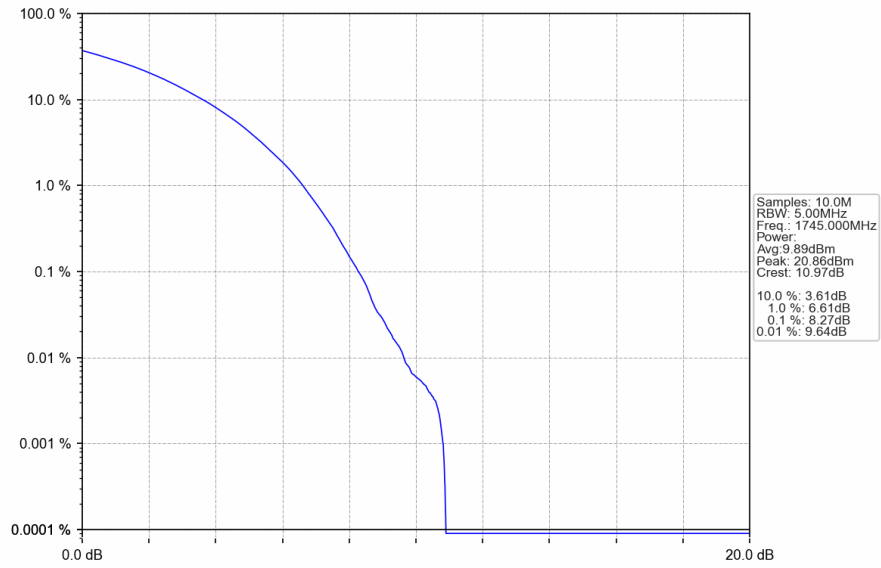
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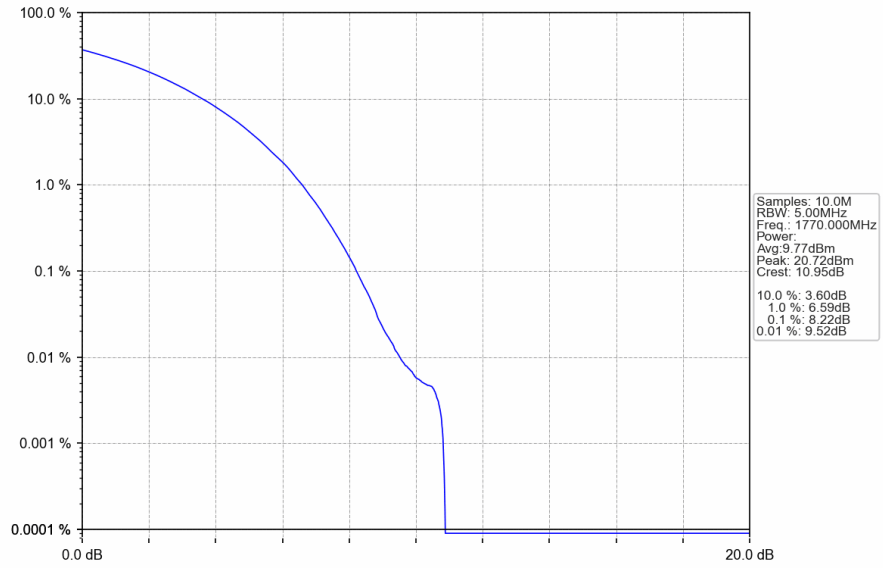
n66\_15kHz\_SISO\_NTNV\_20MHz\_CP-OFDM\_16 QAM\_1720MHz\_Outer\_Full



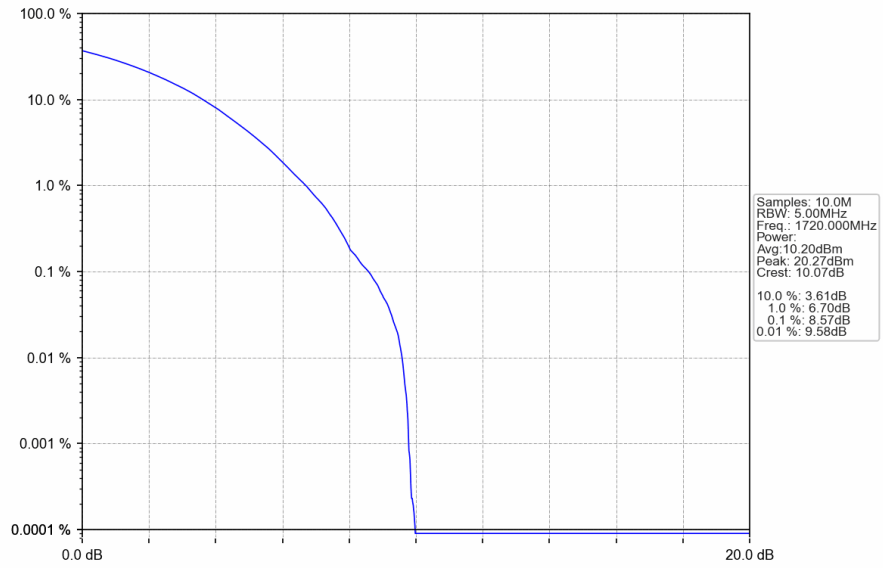
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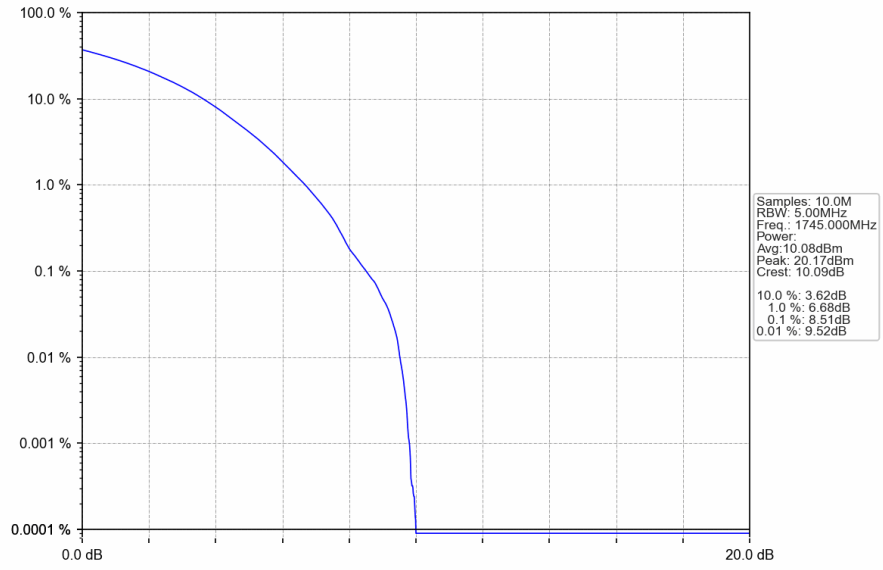
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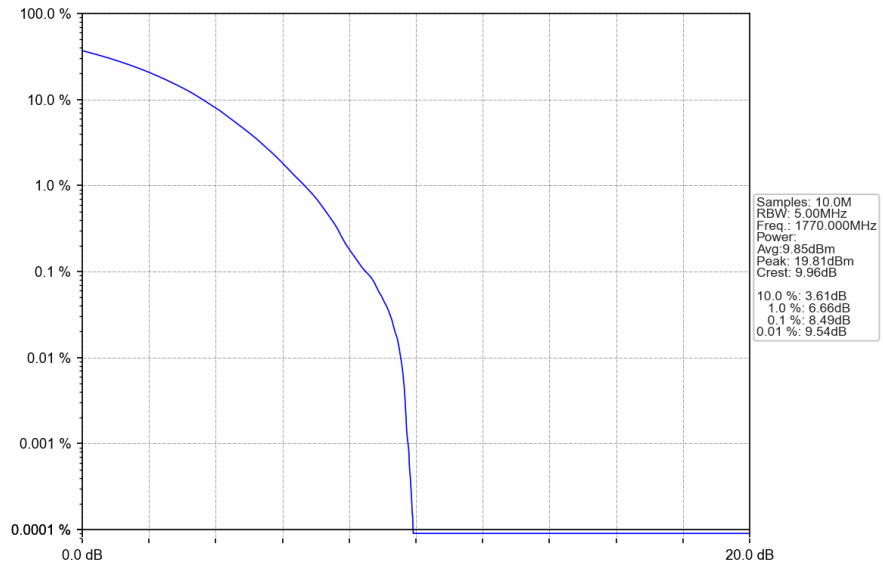
n66\_15kHz\_SISO\_NTNV\_20MHz\_CP-OFDM 64 QAM\_1720MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_20MHz\_CP-OFDM 64 QAM\_1745MHz\_Outer\_Full

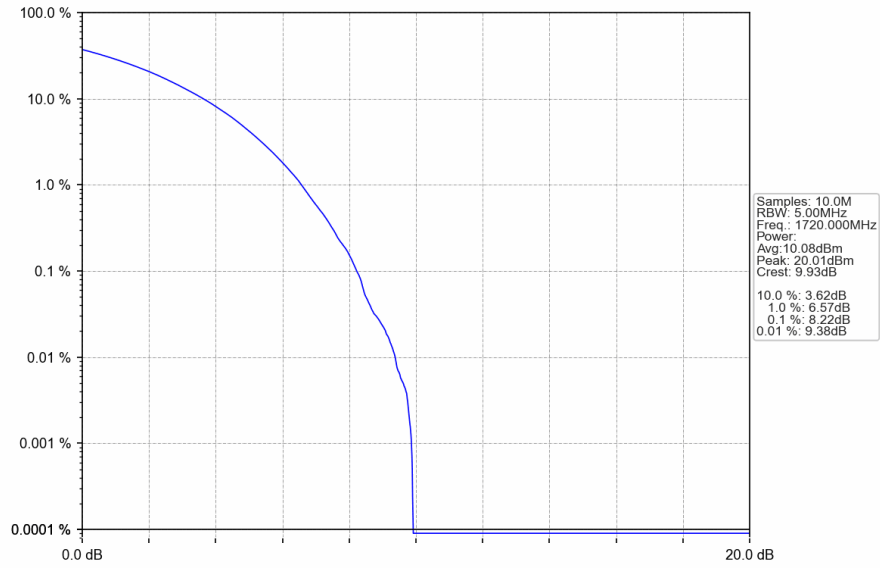


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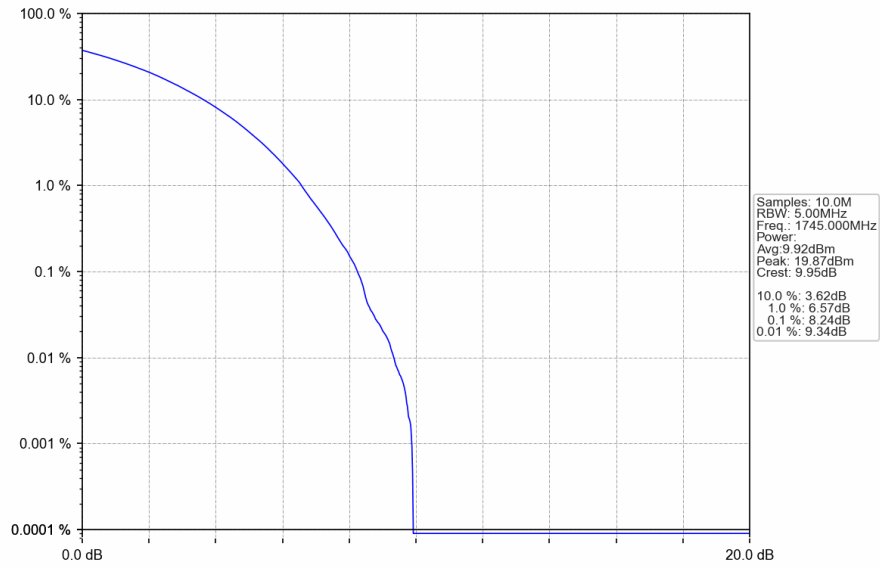




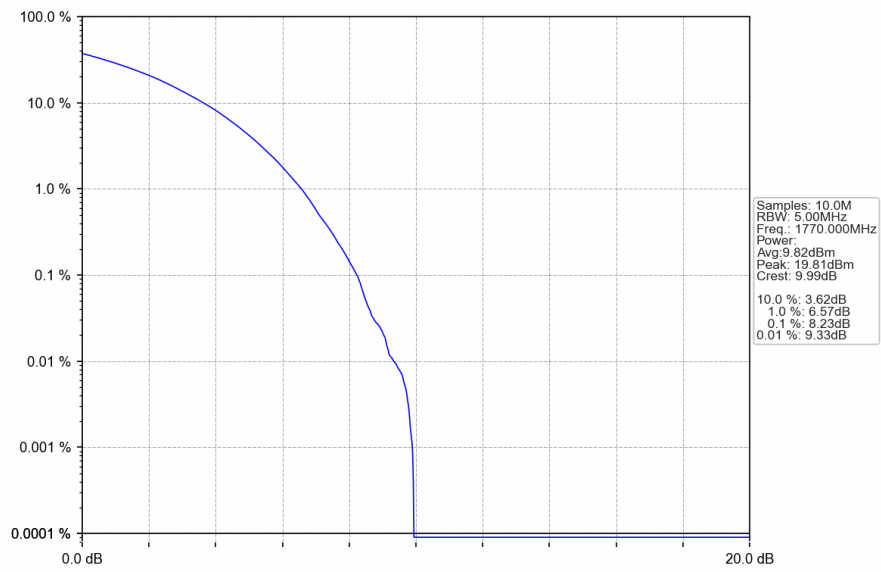
n66\_15kHz\_SISO\_NTNV\_20MHz\_CP-OFDM 256 QAM\_1720MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_20MHz\_CP-OFDM 256 QAM\_1745MHz\_Outer\_Full



n66\_15kHz\_SISO\_NTNV\_20MHz\_CP-OFDM\_256\_QAM\_1770MHz\_Outer\_Full



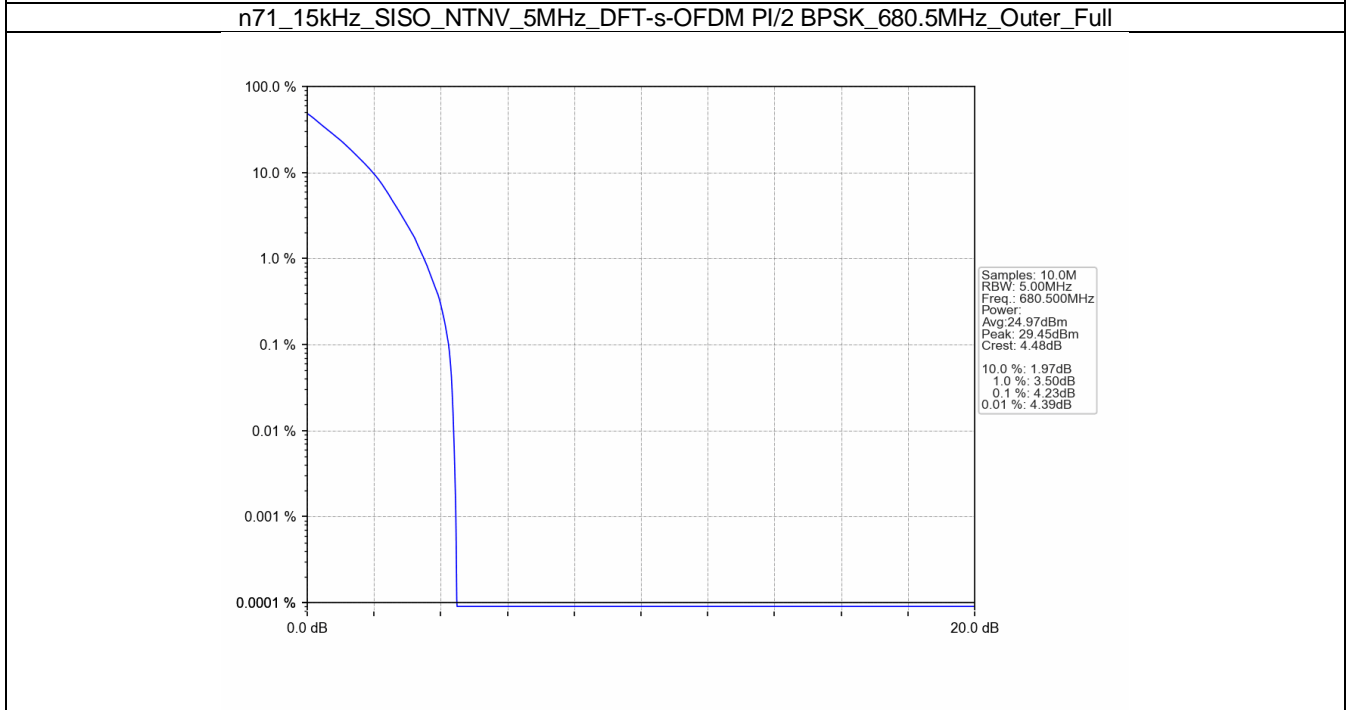
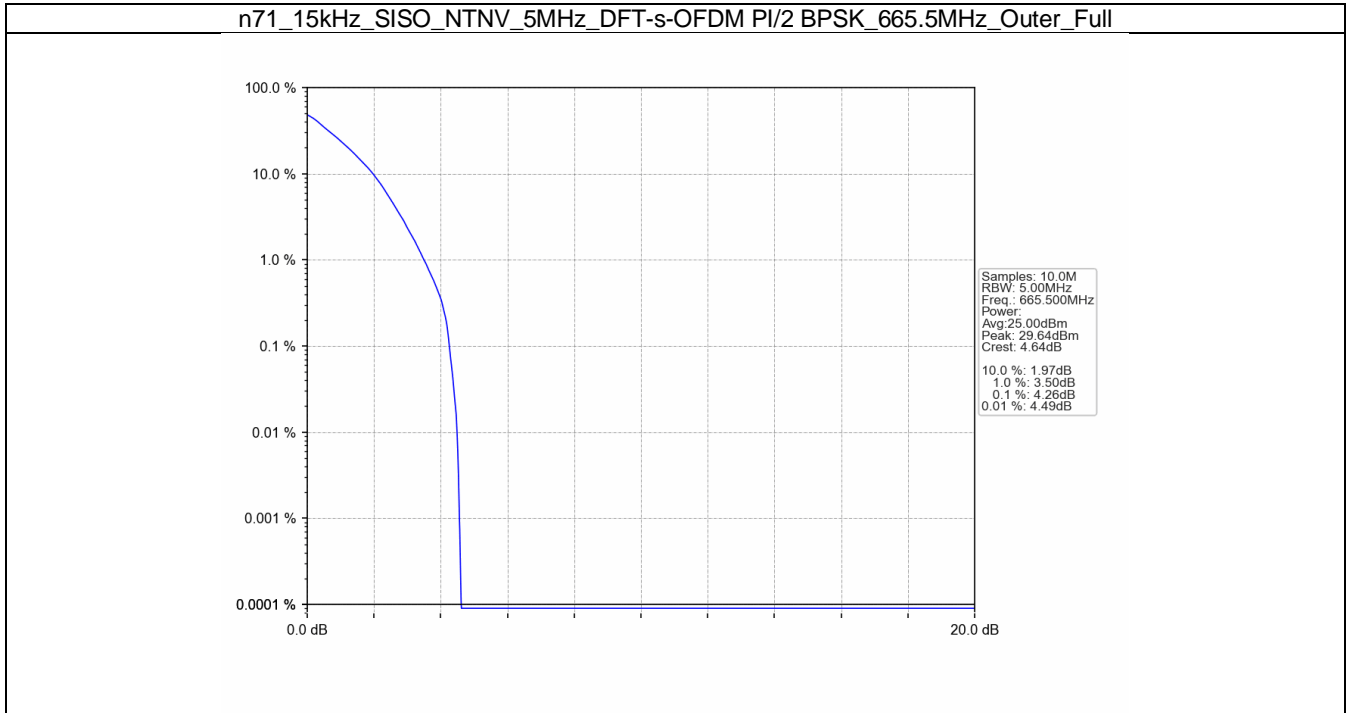
## 5. Peak-Average Ratio

### 5.1 15k\_SISO\_5MHz\_NTNV

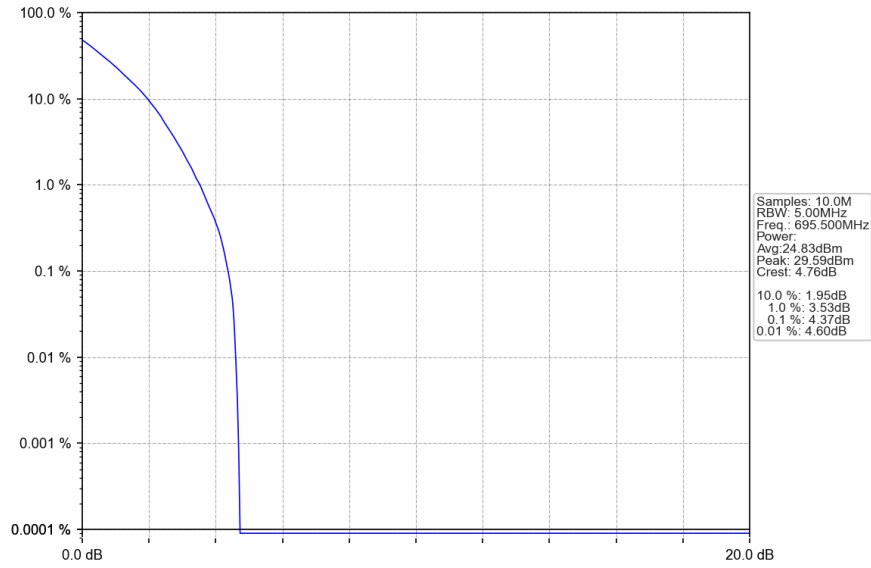
#### 5.1.1 Test Result

| 5G NR n71 SCS=15kHz SISO 5MHz NTN |                 |               |                          |      |     |       |         |
|-----------------------------------|-----------------|---------------|--------------------------|------|-----|-------|---------|
| Modulation                        | Frequency (MHz) | RB Allocation | Peak-Average Ratio (dBm) |      |     |       | Verdict |
|                                   |                 |               | Ant1                     | Ant2 | Sum | Limit |         |
| DFT-s-OFDM PI/2 BPSK              | 665.5           | Outer_Full    | 4.26                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 4.23                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 4.37                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM QPSK                   | 665.5           | Outer_Full    | 5.46                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 5.57                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 5.61                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 16 QAM                 | 665.5           | Outer_Full    | 6.31                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 6.43                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 6.54                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 64 QAM                 | 665.5           | Outer_Full    | 6.56                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 6.59                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 6.60                     | /    | /   | <=13  | Pass    |
| DFT-s-OFDM 256 QAM                | 665.5           | Outer_Full    | 6.46                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 6.54                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 6.45                     | /    | /   | <=13  | Pass    |
| CP-OFDM QPSK                      | 665.5           | Outer_Full    | 7.60                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 7.80                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 7.03                     | /    | /   | <=13  | Pass    |
| CP-OFDM 16 QAM                    | 665.5           | Outer_Full    | 7.68                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 7.82                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 7.16                     | /    | /   | <=13  | Pass    |
| CP-OFDM 64 QAM                    | 665.5           | Outer_Full    | 7.39                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 7.48                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 7.66                     | /    | /   | <=13  | Pass    |
| CP-OFDM 256 QAM                   | 665.5           | Outer_Full    | 8.34                     | /    | /   | <=13  | Pass    |
|                                   | 680.5           | Outer_Full    | 8.41                     | /    | /   | <=13  | Pass    |
|                                   | 695.5           | Outer_Full    | 8.32                     | /    | /   | <=13  | Pass    |

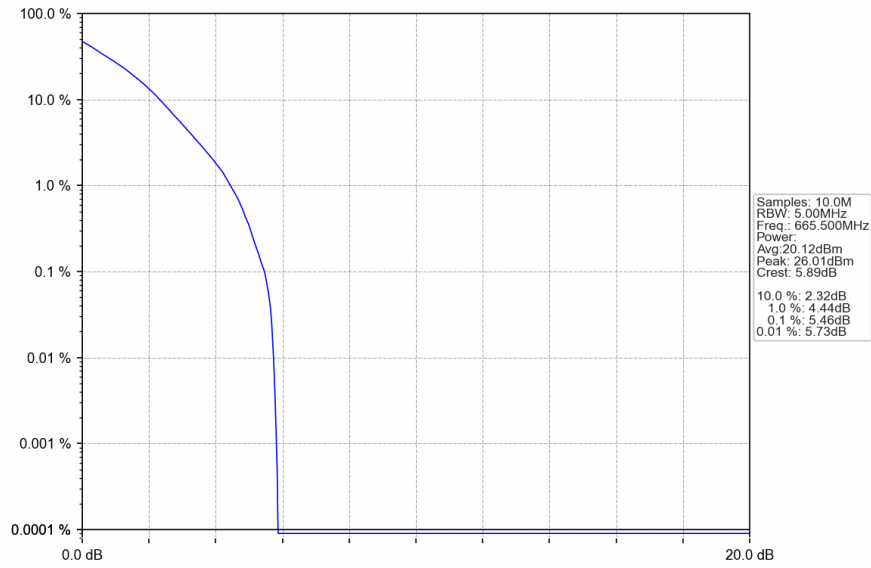
### 5.1.2 Test Graph



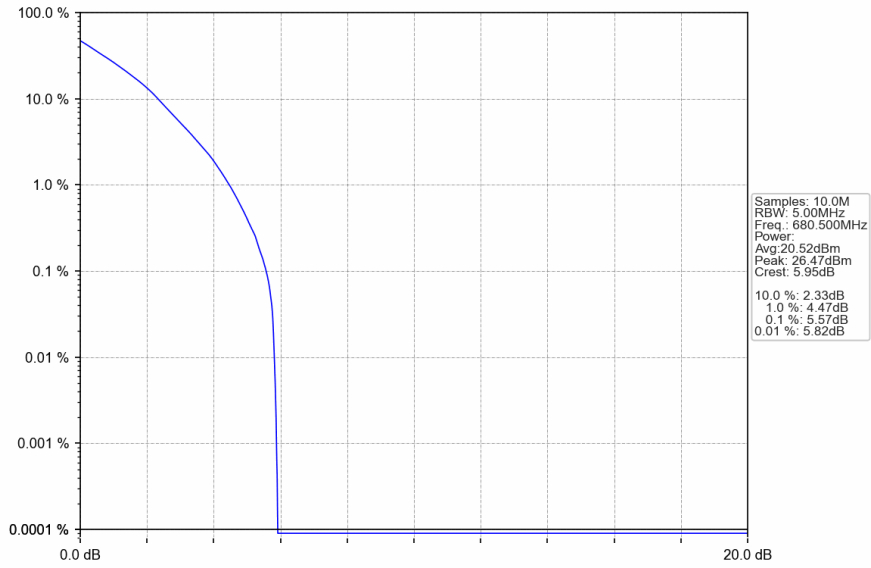
n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM PI/2 BPSK\_695.5MHz\_Outer\_Full



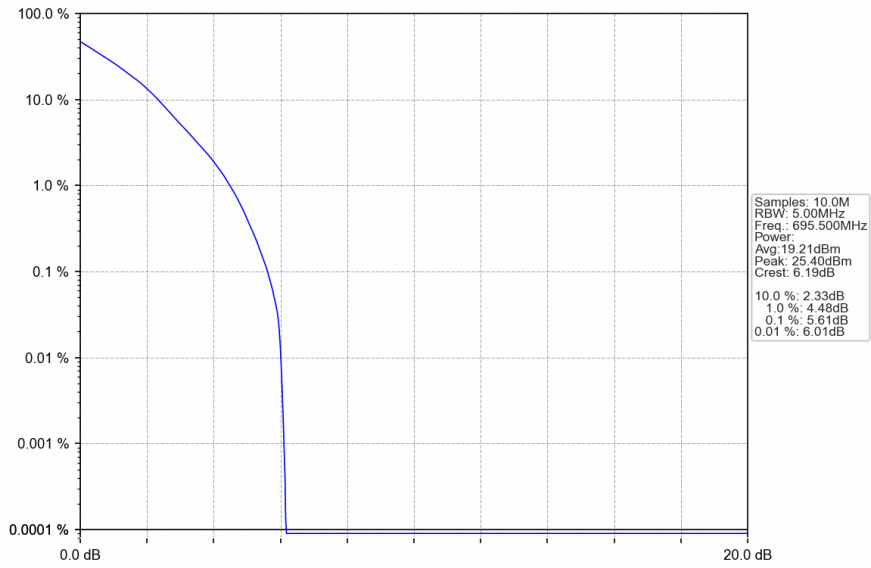
n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM QPSK\_665.5MHz\_Outer\_Full



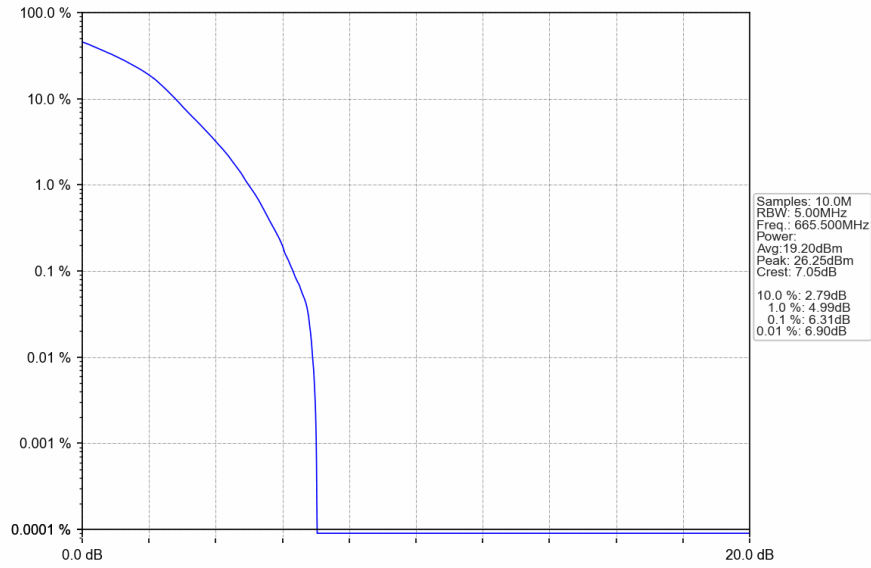
n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM QPSK\_680.5MHz\_Outer\_Full



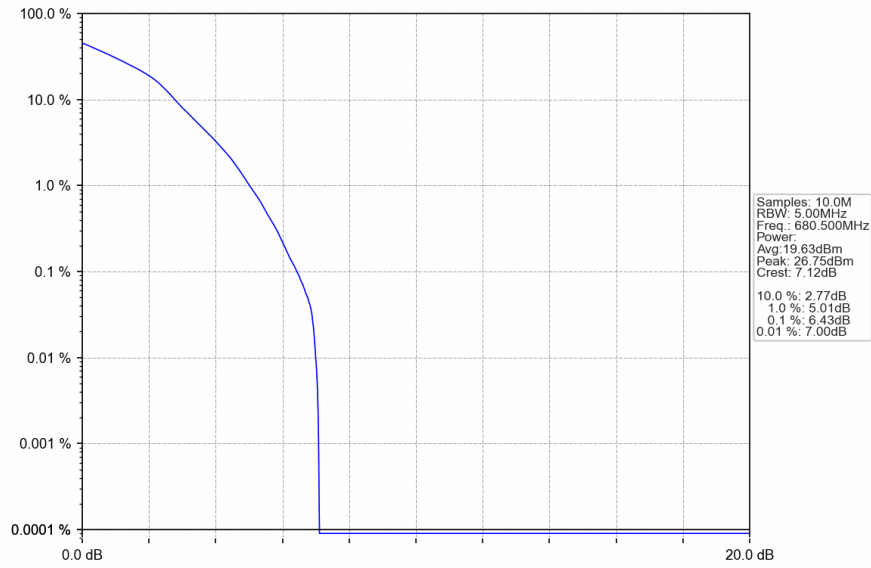
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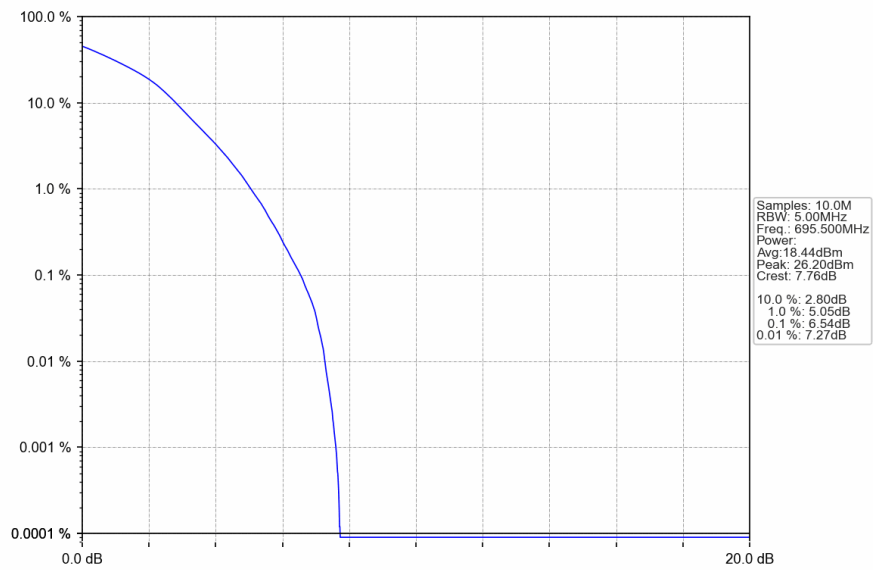
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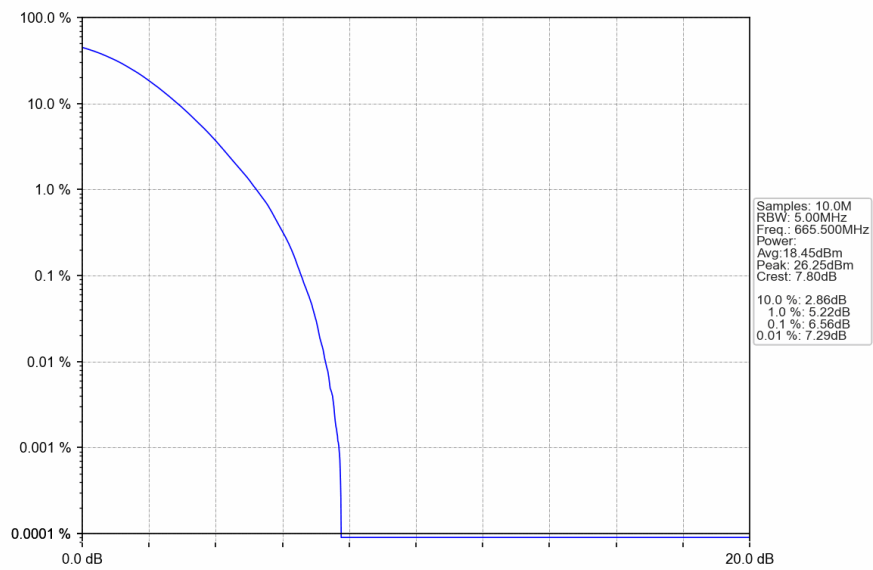
n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM\_16\_QAM\_680.5MHz\_Outer\_Full



n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 16 QAM\_695.5MHz\_Outer\_Full

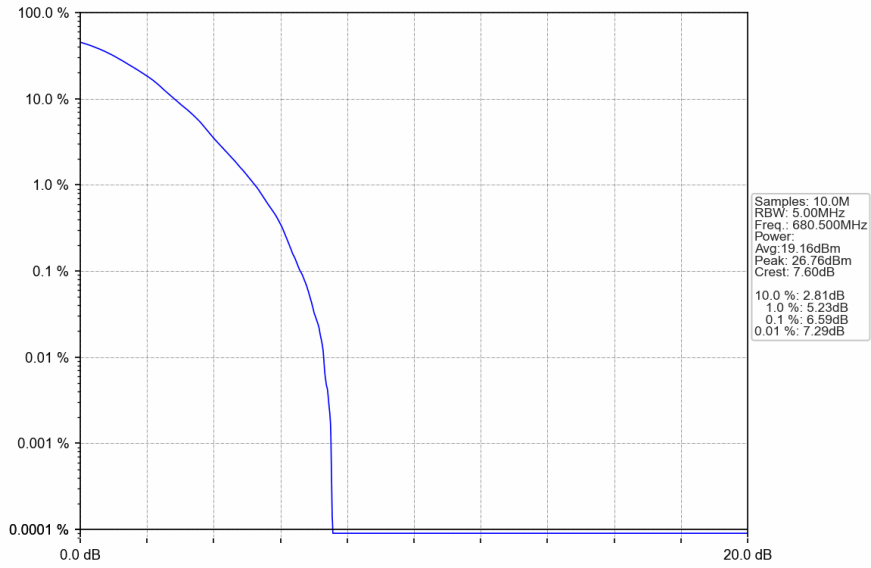


n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 64 QAM\_665.5MHz\_Outer\_Full

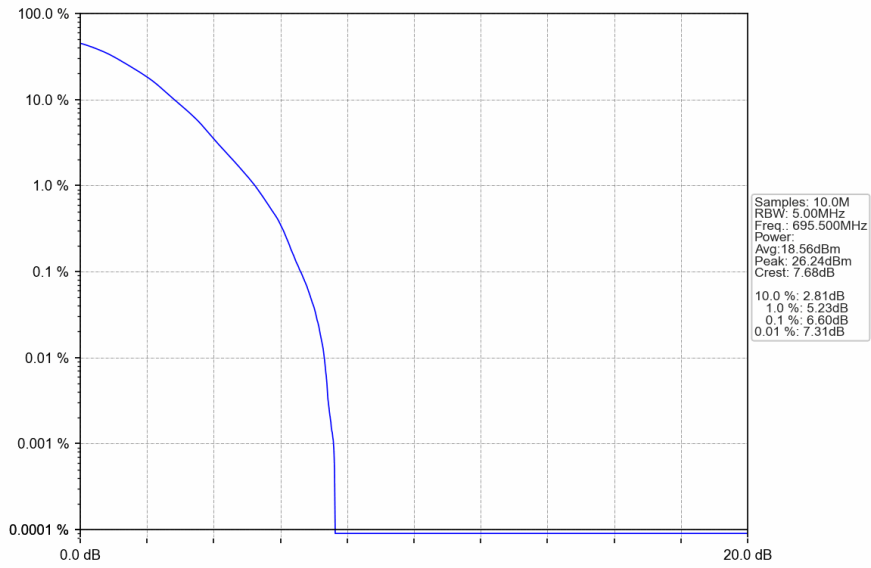




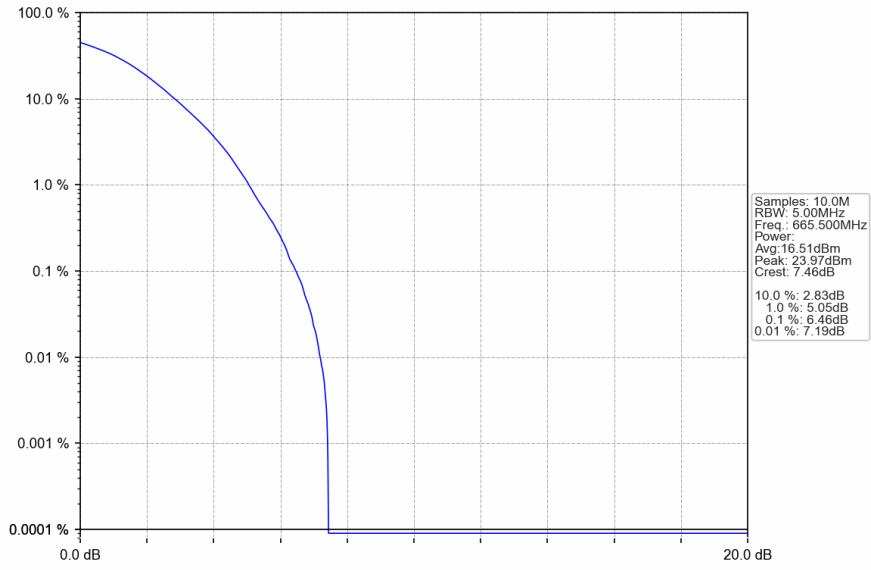
n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 64 QAM\_680.5MHz\_Outer\_Full



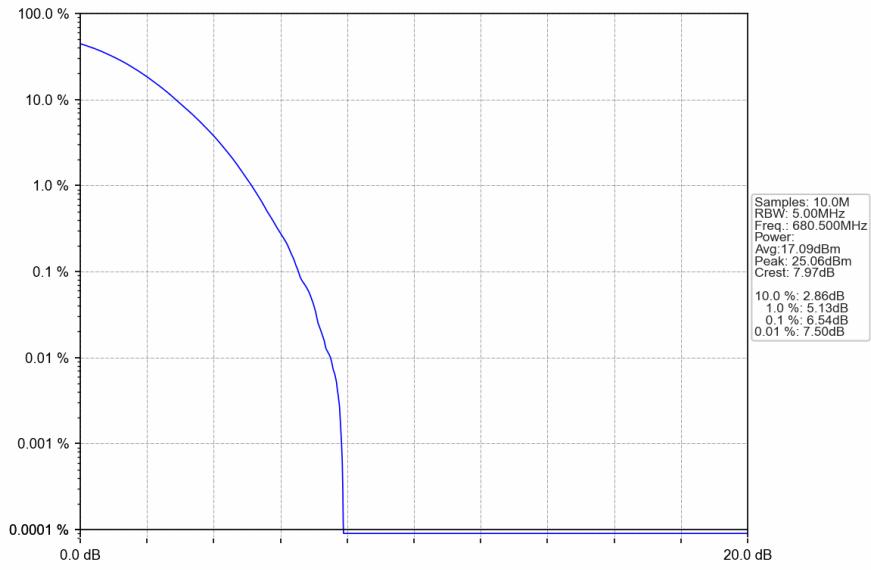
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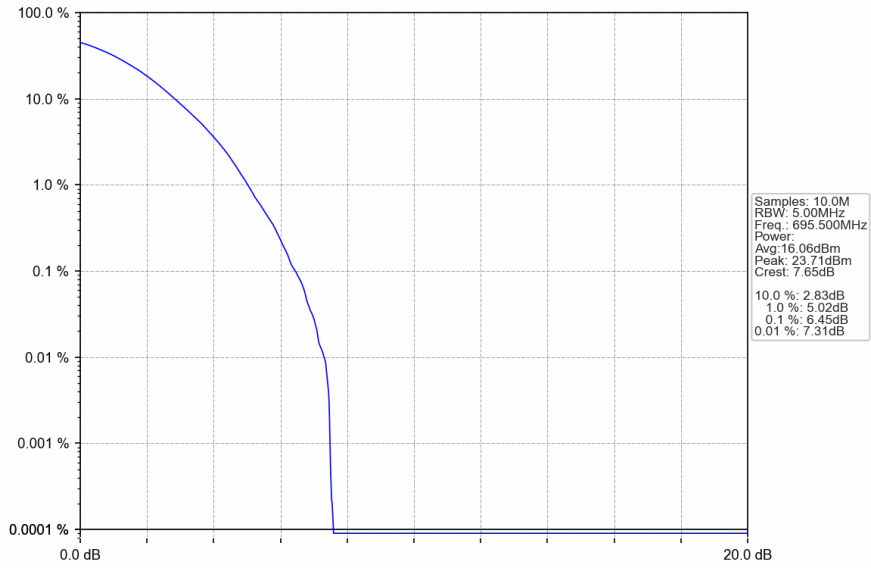
n71\_15kHz\_SISO\_NTNV\_5MHz\_DFT-s-OFDM 256 QAM\_665.5MHz\_Outer\_Full



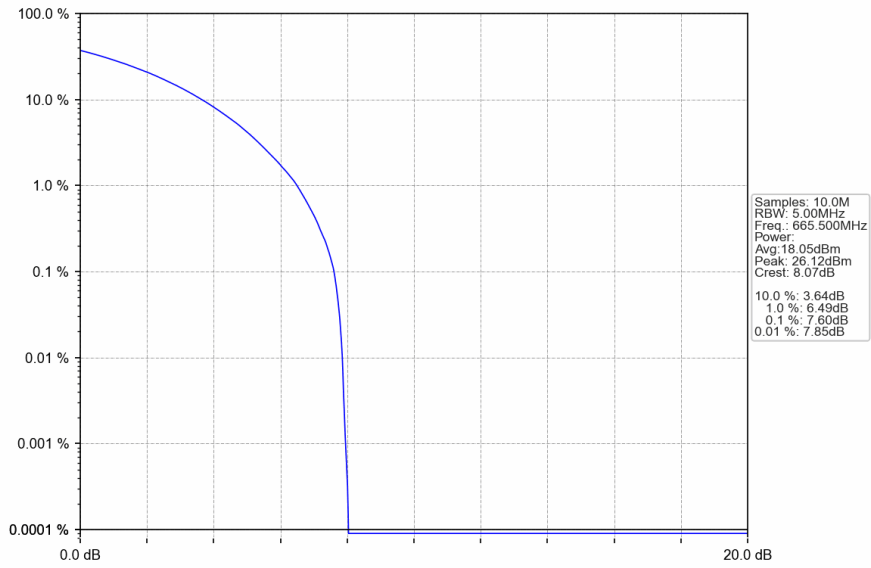
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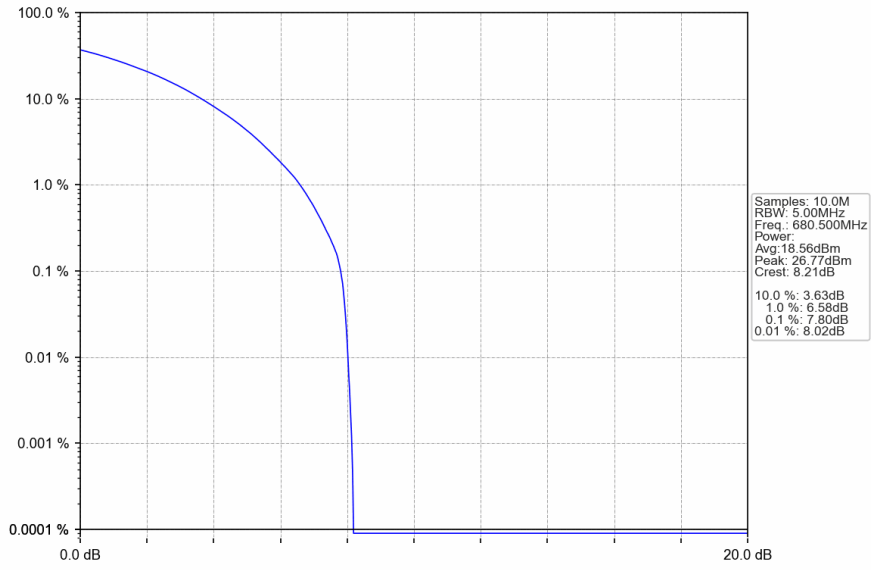
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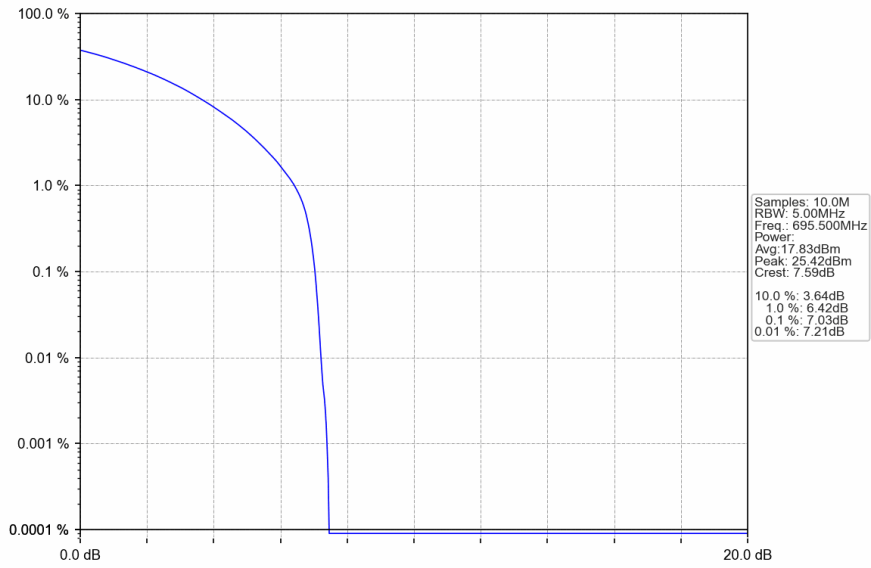
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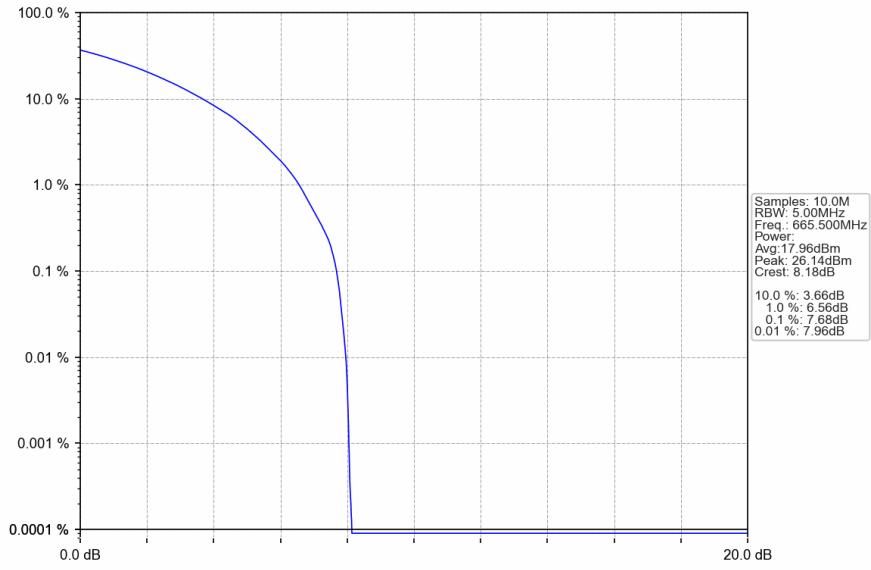
n71\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM QPSK\_680.5MHz\_Outer\_Full



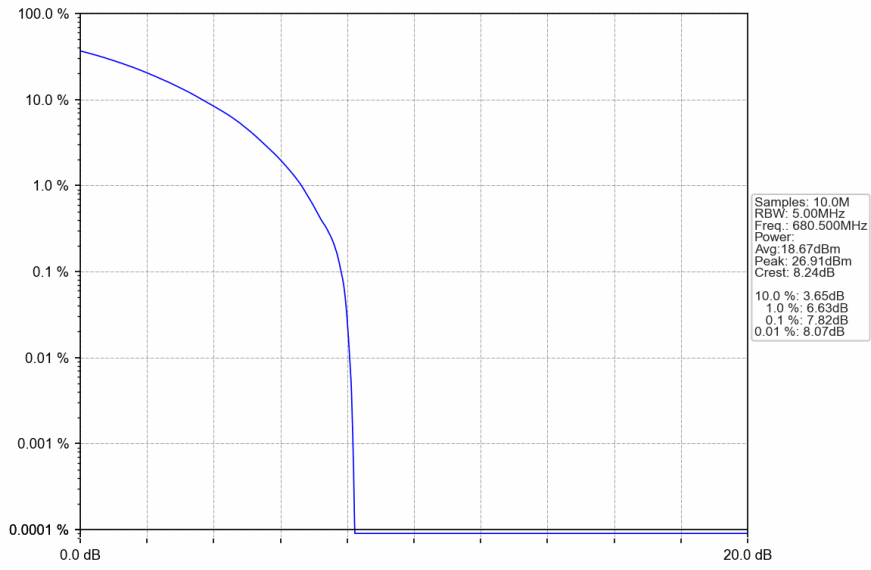
n71\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM QPSK\_695.5MHz\_Outer\_Full



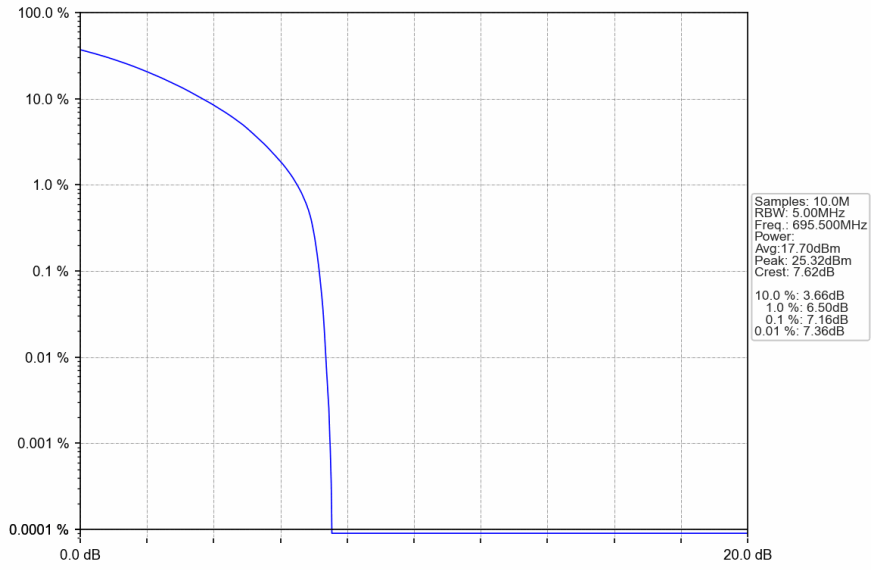
n71\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 16 QAM\_665.5MHz\_Outer\_Full



n71\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 16 QAM\_680.5MHz\_Outer\_Full



n71\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 16 QAM\_695.5MHz\_Outer\_Full



n71\_15kHz\_SISO\_NTNV\_5MHz\_CP-OFDM 64 QAM\_665.5MHz\_Outer\_Full

