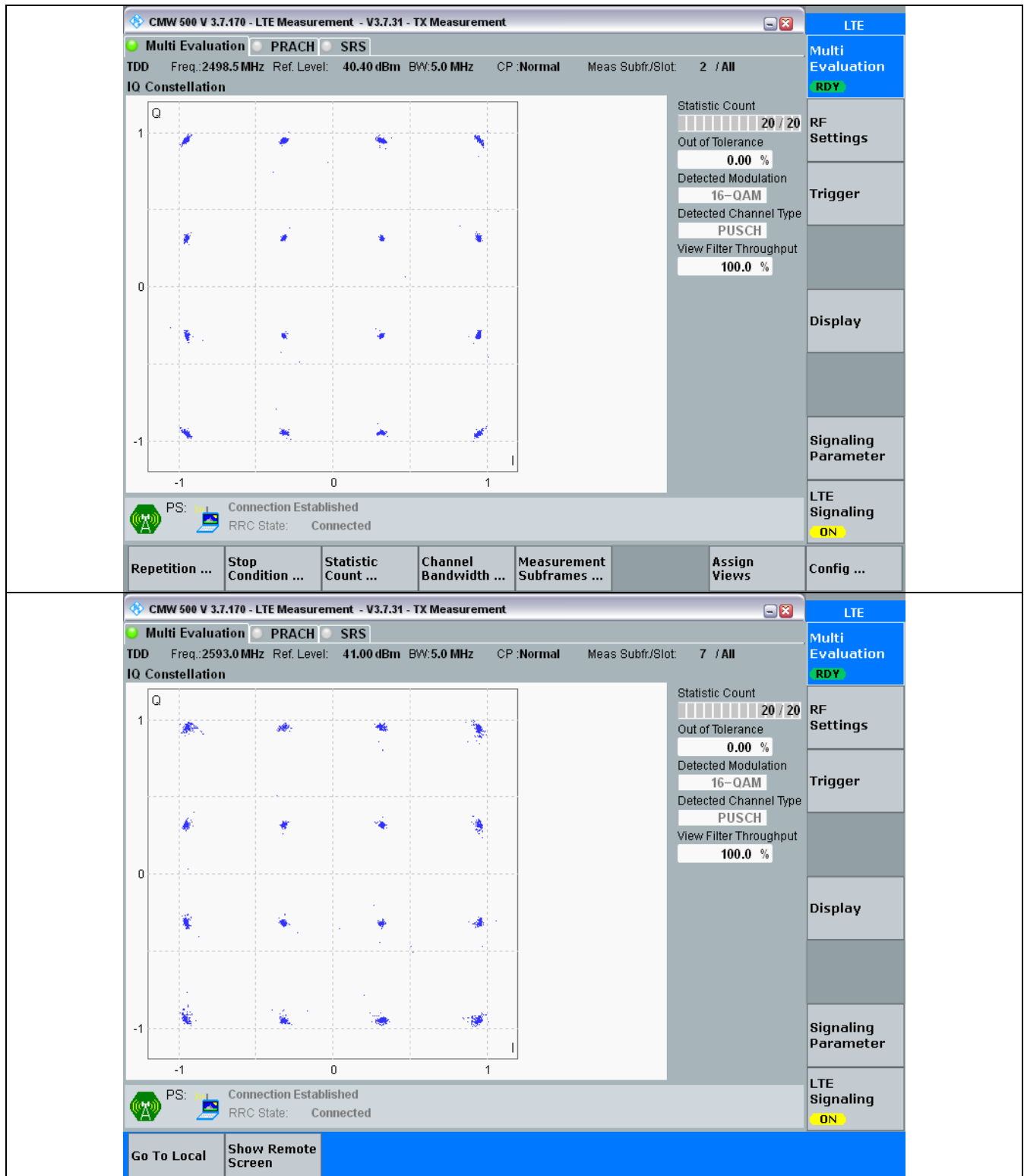


# 6. Modulation Characteristics

## 6.1 Test Graph



CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2687.5 MHz Ref. Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr./Slot: 3 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 16-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2498.5 MHz Ref. Level: 40.40 dBm BW: 5.0 MHz CP: Normal Meas Subfr./Slot: 7 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr./Slot: 7 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2687.5 MHz Ref. Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr./Slot: 8 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2498.5 MHz Ref. Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

**IQ Constellation**

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 64-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Go To Local Show Remote Screen

LTE

Multi Evaluation RDY

RF Settings

Trigger

Display

Signaling Parameter

LTE Signaling ON

CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 5.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

**IQ Constellation**

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 64-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Go To Local Show Remote Screen

LTE

Multi Evaluation RDY

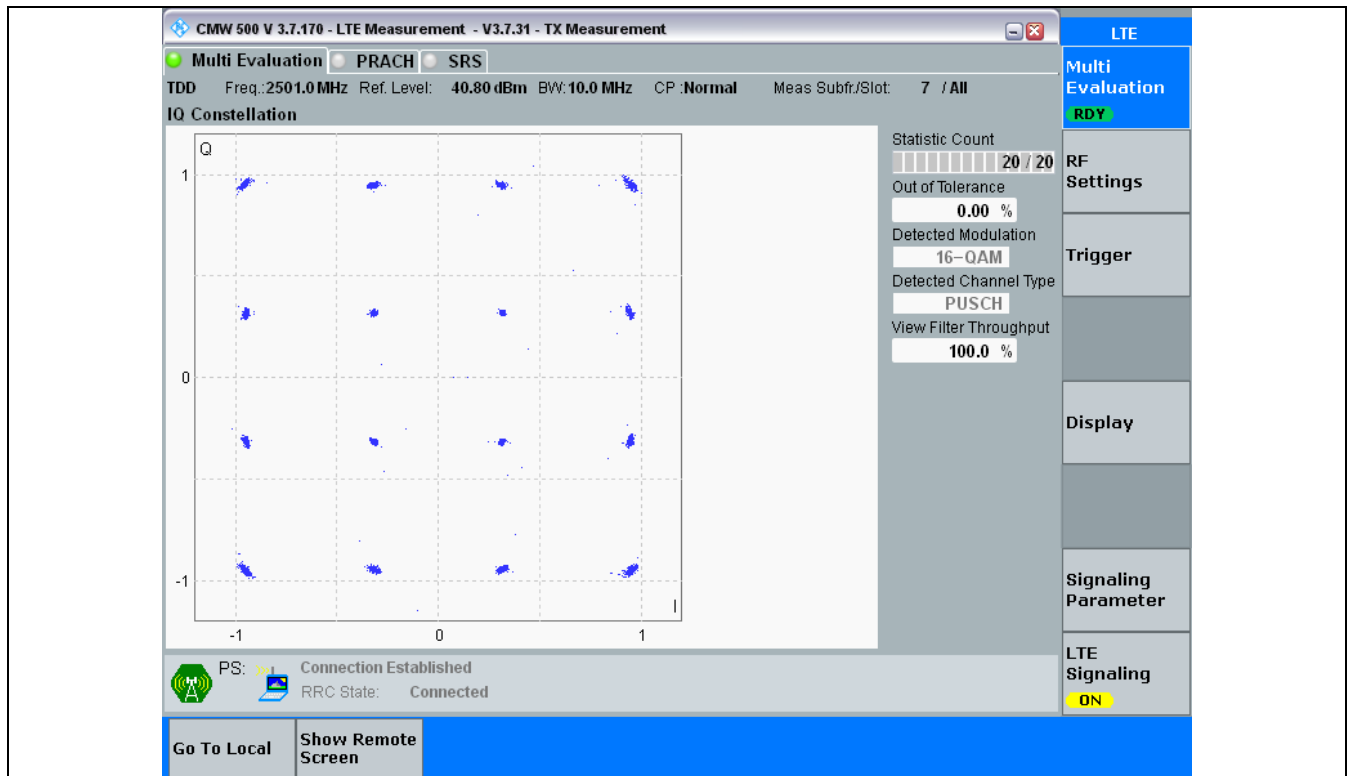
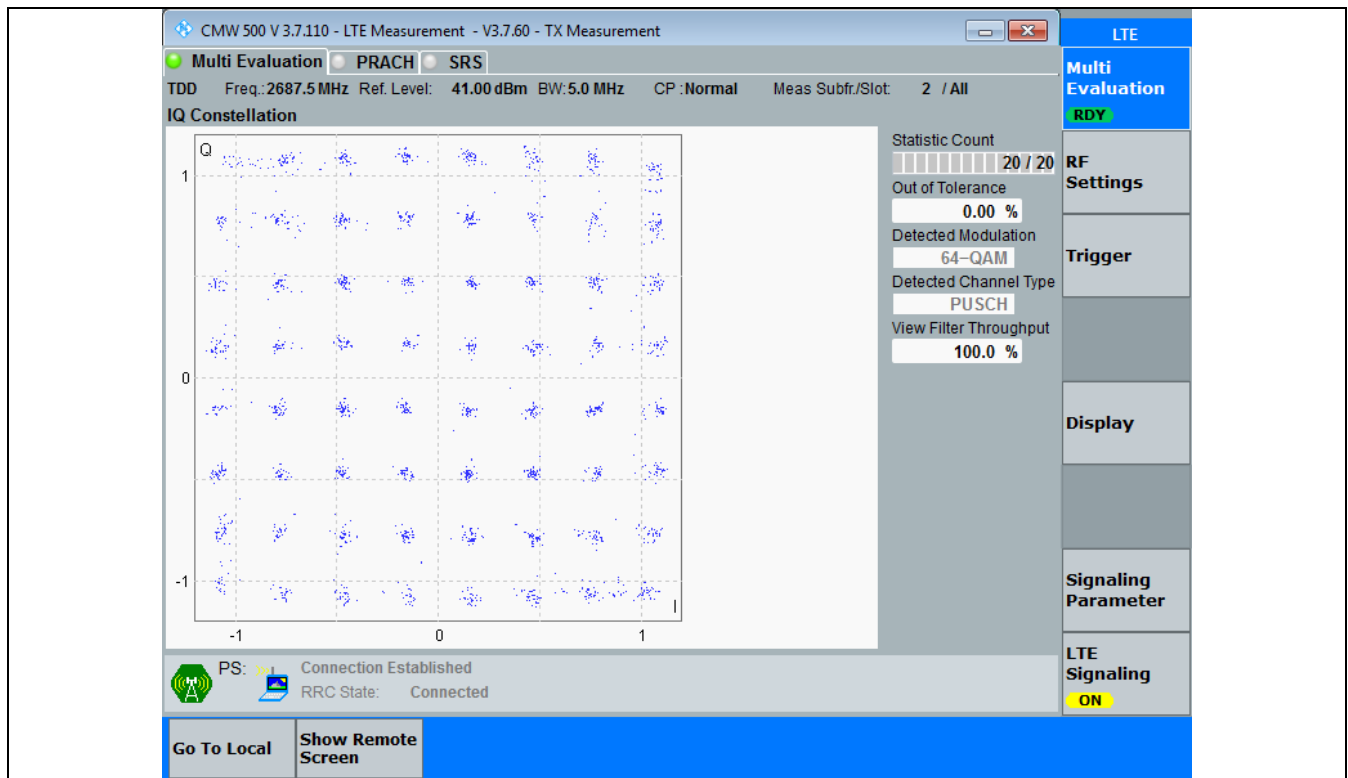
RF Settings

Trigger

Display

Signaling Parameter

LTE Signaling ON



CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subfr/Slot: 7 / All

IQ Constellation

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 16-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY RF Settings Trigger Display Signaling Parameter LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2685.0 MHz Ref. Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

IQ Constellation

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 16-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Go To Local Show Remote Screen

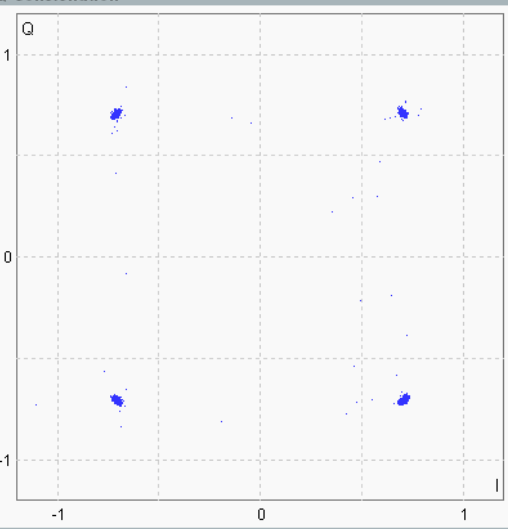
LTE Multi Evaluation RDY RF Settings Trigger Display Signaling Parameter LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2501.0 MHz Ref. Level: 40.90 dBm BW: 10.0 MHz CP: Normal Meas Subfr./Slot: 8 / All

IQ Constellation



Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

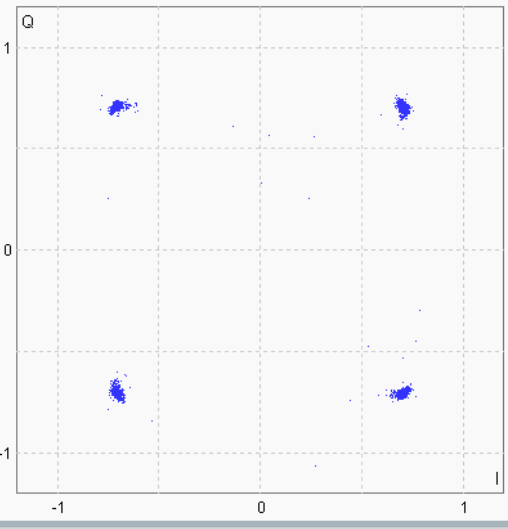
LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subfr./Slot: 8 / All

IQ Constellation

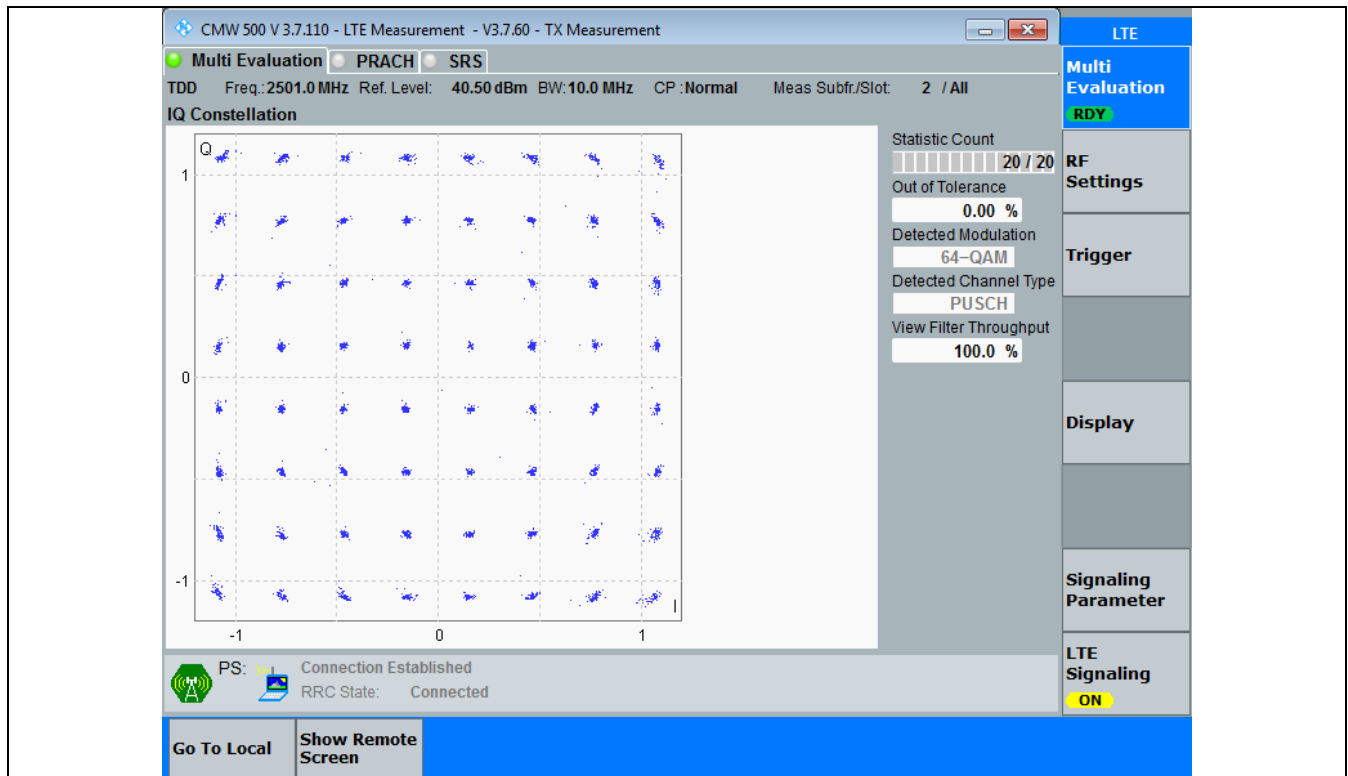
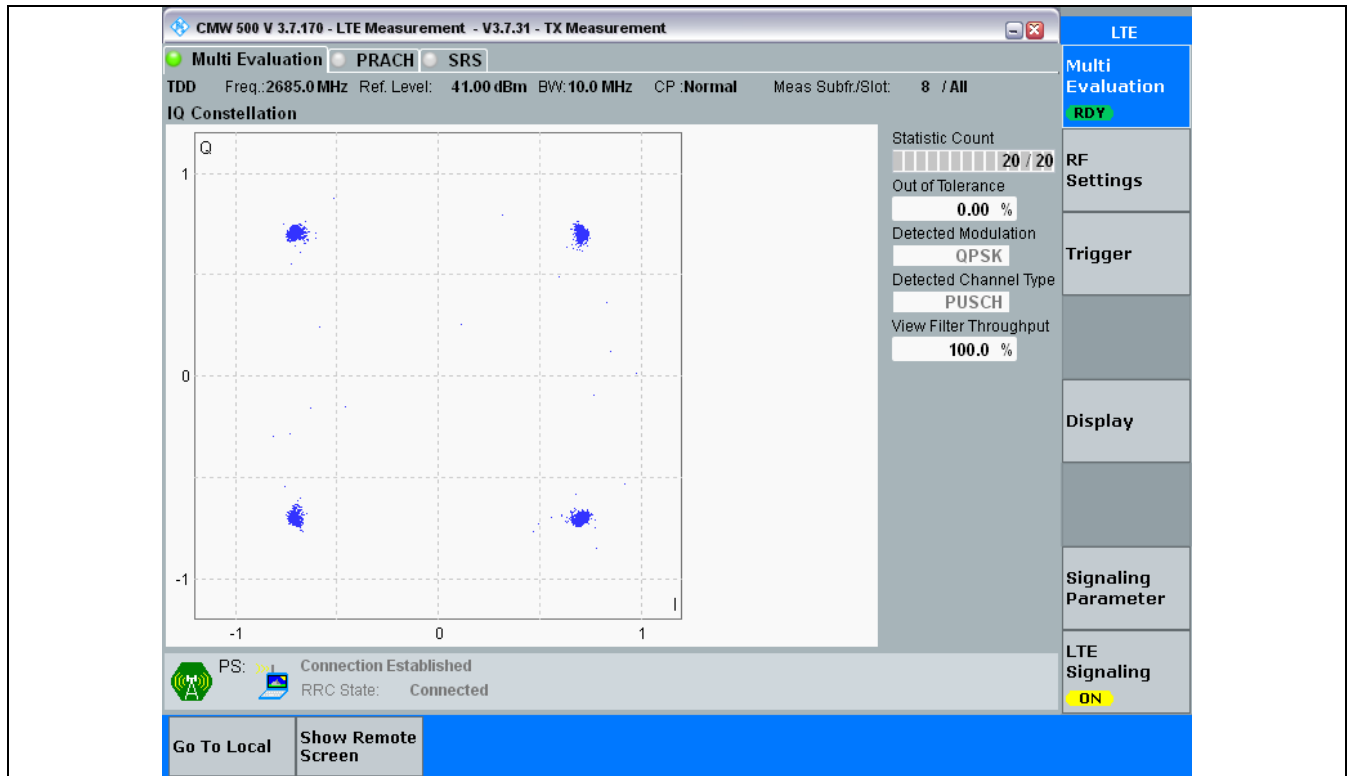


Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON





CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subfr/Slot: 8 / All

**IQ Constellation**

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 64-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2685.0 MHz Ref. Level: 41.00 dBm BW: 10.0 MHz CP: Normal Meas Subfr/Slot: 8 / All

**IQ Constellation**

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 64-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2503.5 MHz Ref. Level: 40.40 dBm BW: 15.0 MHz CP: Normal Meas Subfr/Slot: 8 / All

IQ Constellation

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 16-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY RF Settings Trigger Display Signaling Parameter LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 15.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

IQ Constellation

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 16-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY RF Settings Trigger Display Signaling Parameter LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2682.5 MHz Ref. Level: 41.00 dBm BW: 15.0 MHz CP: Normal Meas Subfr./Slot: 7 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 16-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2503.5 MHz Ref. Level: 40.40 dBm BW: 15.0 MHz CP: Normal Meas Subfr./Slot: 8 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 15.0 MHz CP: Normal Meas Subfr./Slot: 3 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2682.5 MHz Ref. Level: 41.00 dBm BW: 15.0 MHz CP: Normal Meas Subfr./Slot: 2 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

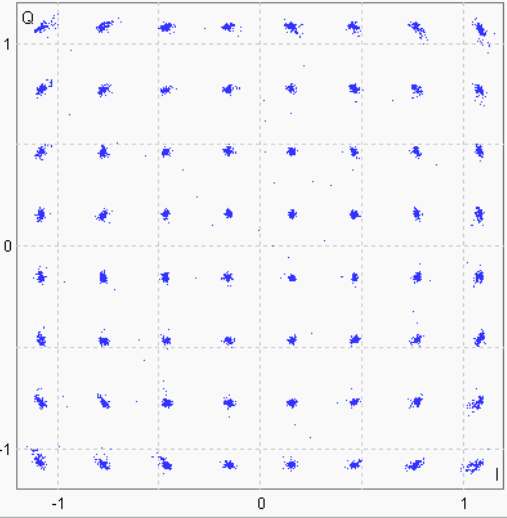
LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2503.5 MHz Ref. Level: 41.00 dBm BW: 15.0 MHz CP: Normal Meas Subfr/Slot: 7 / All

IQ Constellation



Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 64-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY

RF Settings

Trigger

Display

Signaling Parameter

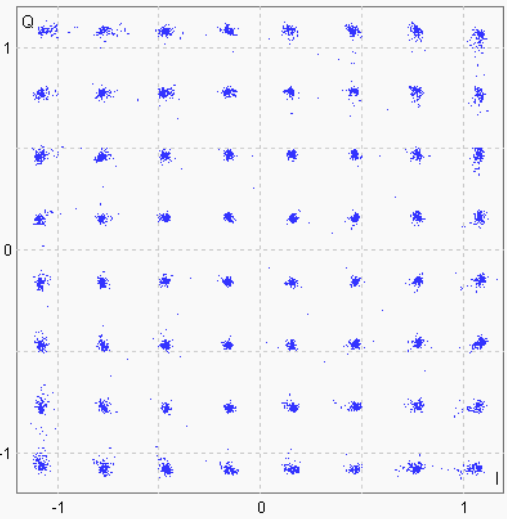
LTE Signaling ON

CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 15.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

IQ Constellation



Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 64-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY

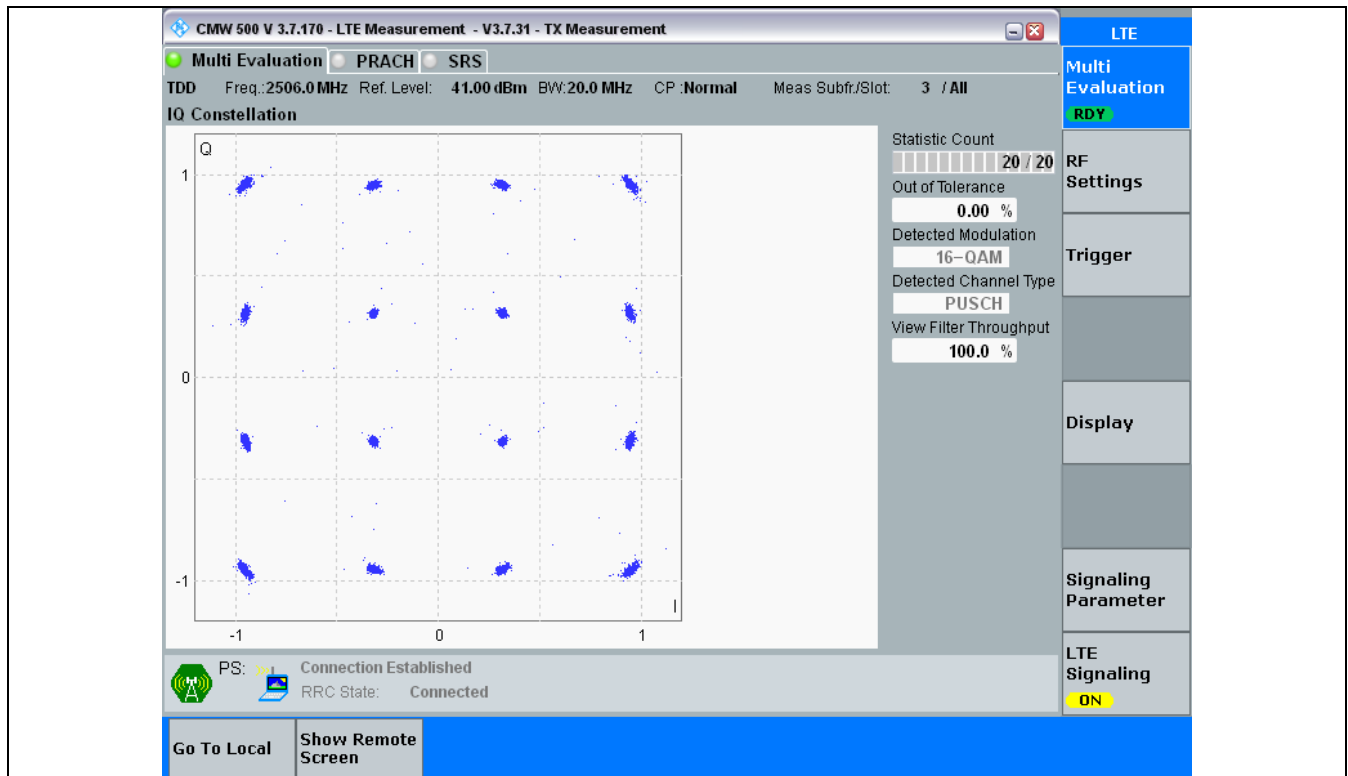
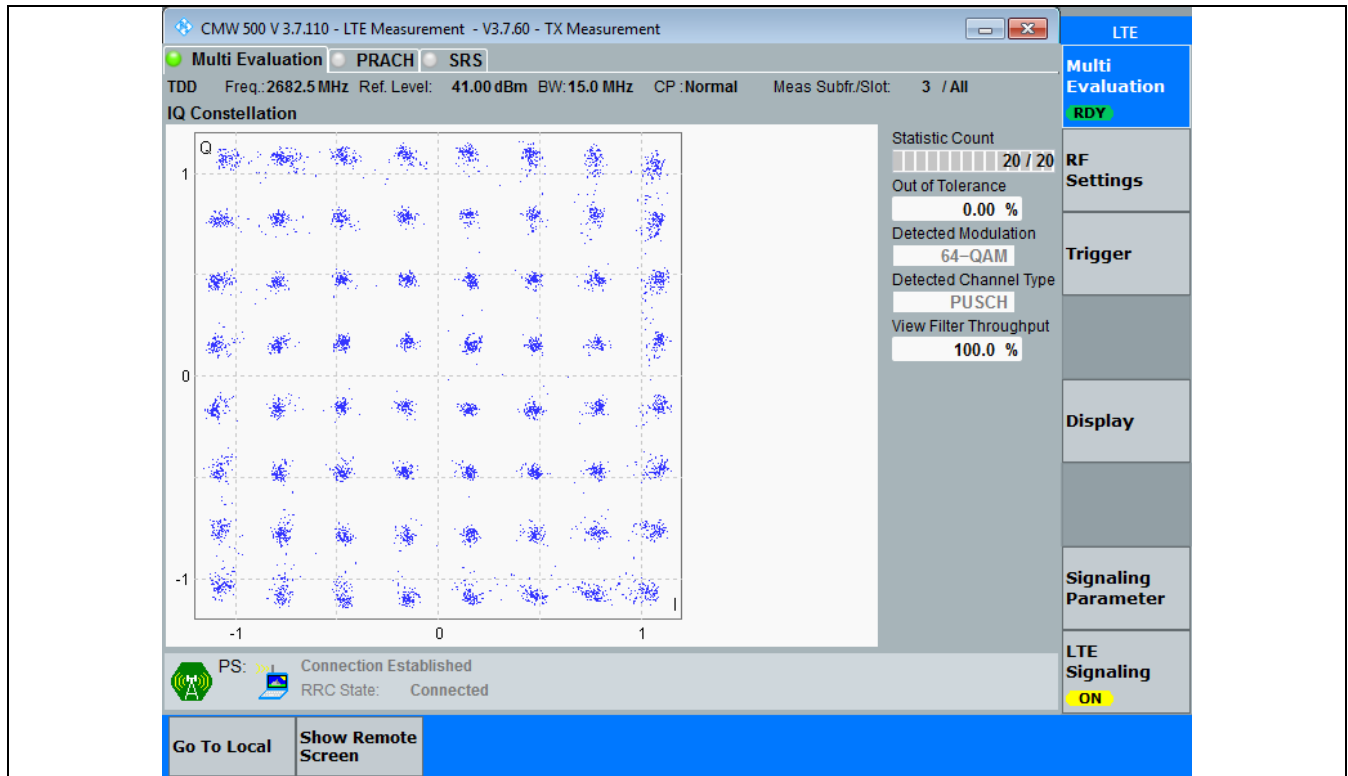
RF Settings

Trigger

Display

Signaling Parameter

LTE Signaling ON



CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

IQ Constellation

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 16-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established  
RRC State: Connected

Go To Local Show Remote Screen

LTE

Multi Evaluation RDY

RF Settings

Trigger

Display

Signaling Parameter

LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2680.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 2 / All

IQ Constellation

Statistic Count: 20 / 20

Out of Tolerance: 0.00 %

Detected Modulation: 16-QAM

Detected Channel Type: PUSCH

View Filter Throughput: 100.0 %

PS: Connection Established  
RRC State: Connected

Go To Local Show Remote Screen

LTE

Multi Evaluation RDY

RF Settings

Trigger

Display

Signaling Parameter

LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2506.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr./Slot: 8 / All

IQ Constellation

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON

CMW 500 V 3.7.170 - LTE Measurement - V3.7.31 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr./Slot: 2 / All

IQ Constellation

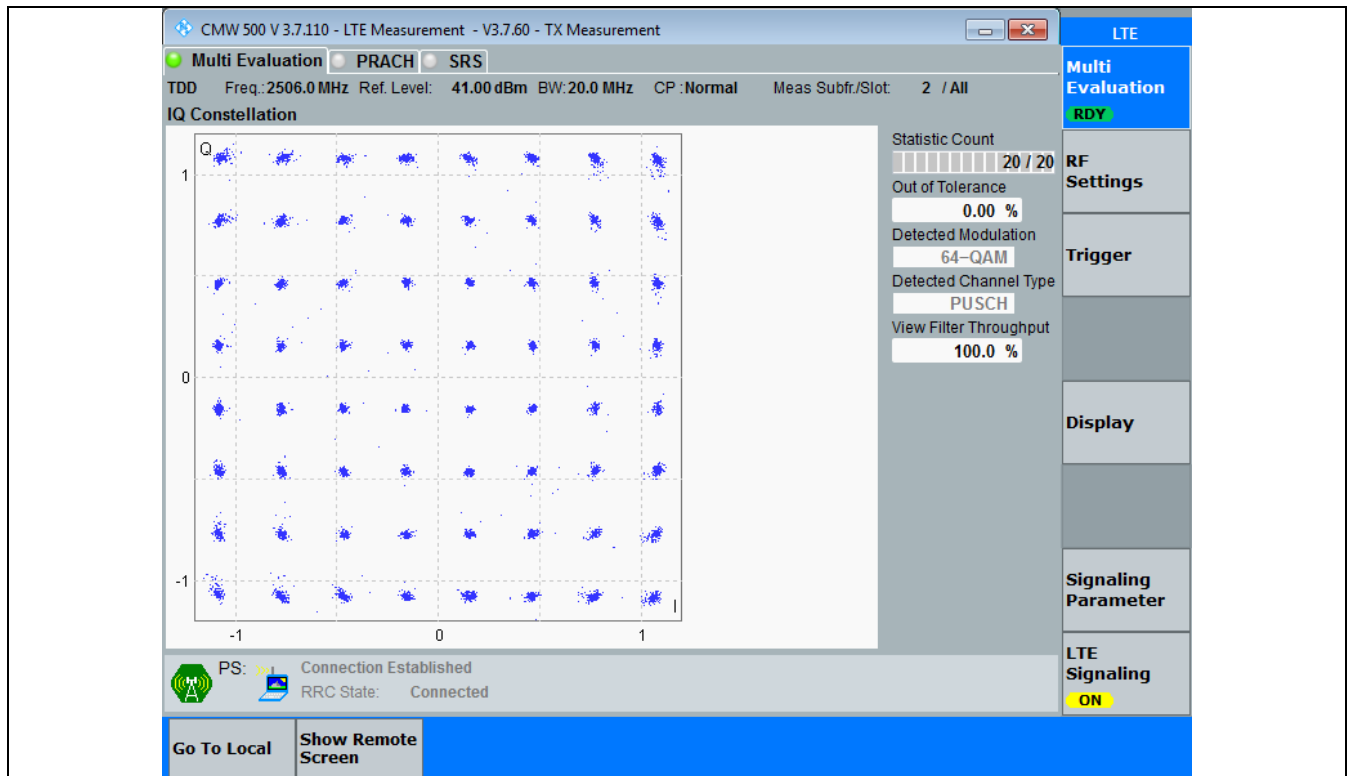
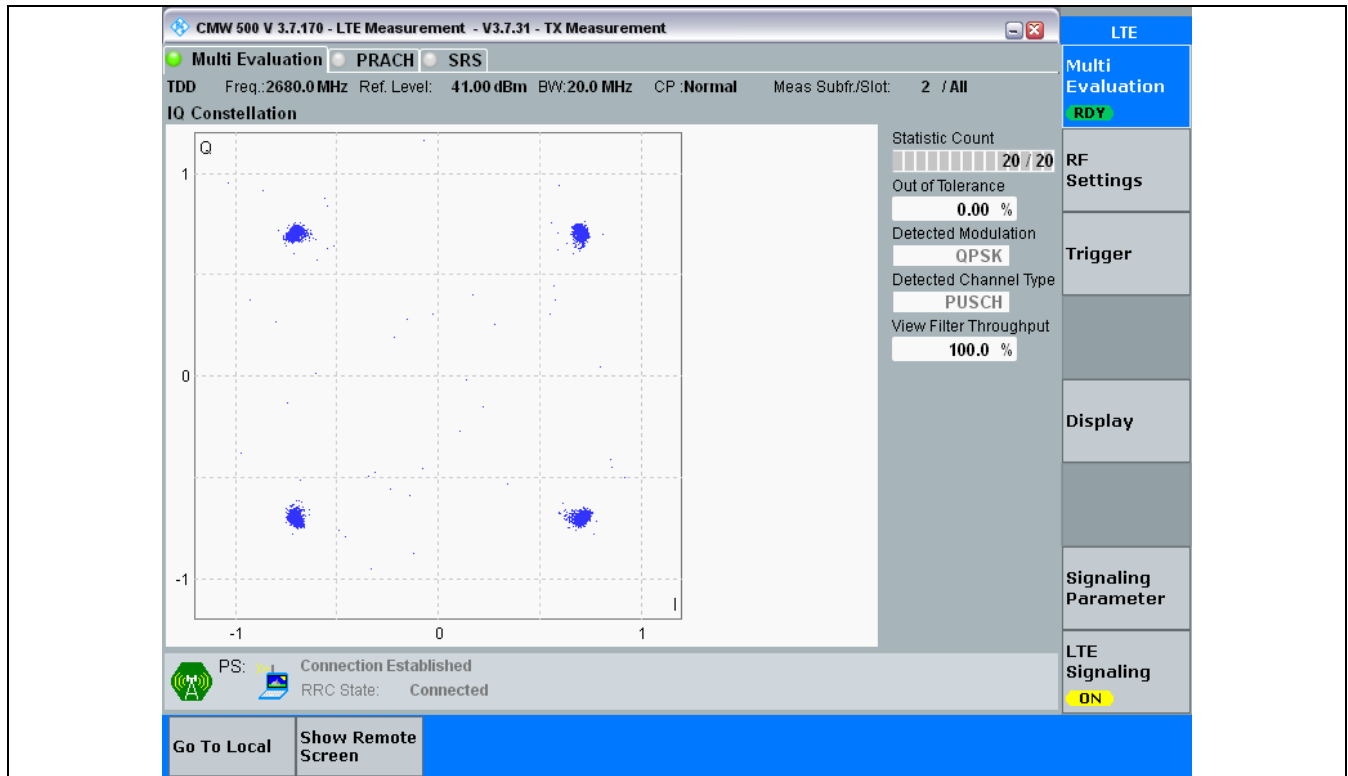
Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: QPSK  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE  
 Multi Evaluation RDY  
 RF Settings  
 Trigger  
 Display  
 Signaling Parameter  
 LTE Signaling ON





CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2593.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 8 / All

**IQ Constellation**

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 64-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY

RF Settings

Trigger

Display

Signaling Parameter

LTE Signaling ON

CMW 500 V 3.7.110 - LTE Measurement - V3.7.60 - TX Measurement

Multi Evaluation PRACH SRS

TDD Freq.: 2680.0 MHz Ref. Level: 41.00 dBm BW: 20.0 MHz CP: Normal Meas Subfr/Slot: 7 / All

**IQ Constellation**

Statistic Count: 20 / 20  
 Out of Tolerance: 0.00 %  
 Detected Modulation: 64-QAM  
 Detected Channel Type: PUSCH  
 View Filter Throughput: 100.0 %

PS: Connection Established  
 RRC State: Connected

Go To Local Show Remote Screen

LTE Multi Evaluation RDY

RF Settings

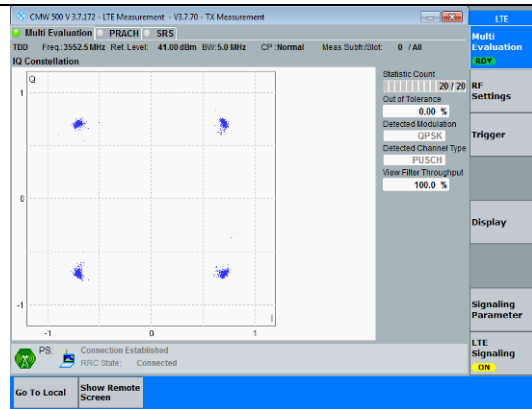
Trigger

Display

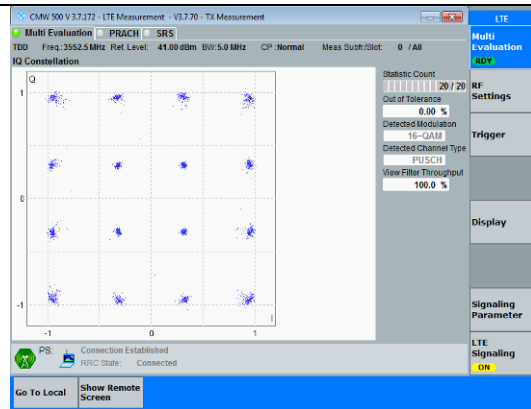
Signaling Parameter

LTE Signaling ON

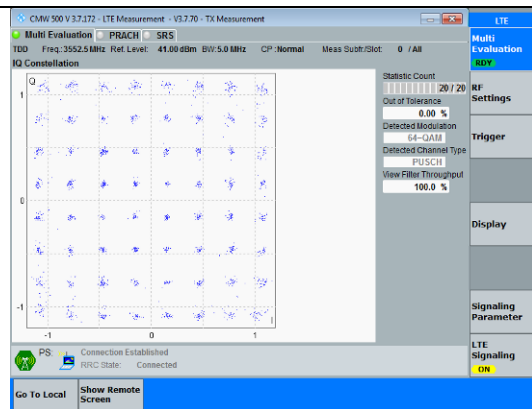
### B48-5M-IQ-L-QPSK



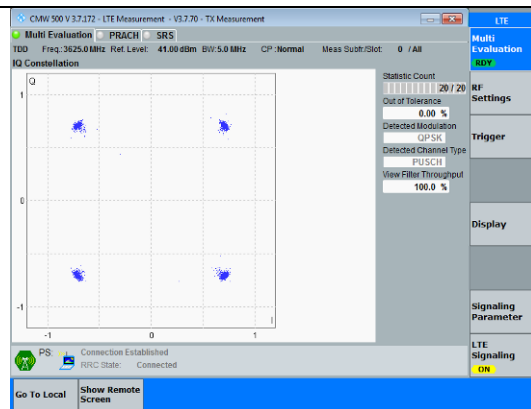
### B48-5M-IQ-L-Q16



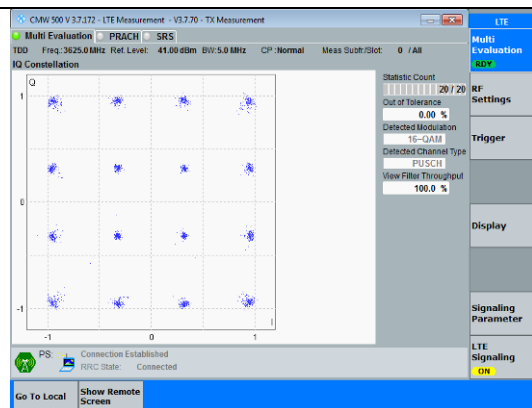
### B48-5M-IQ-L-Q64



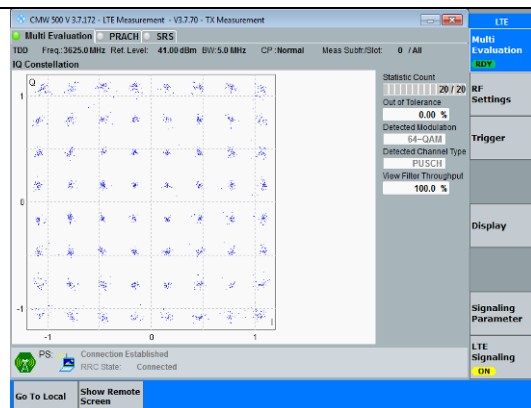
### B48-5M-IQ-M-QPSK



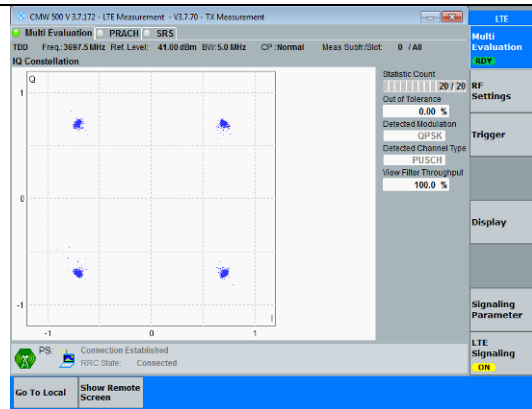
### B48-5M-IQ-M-Q16



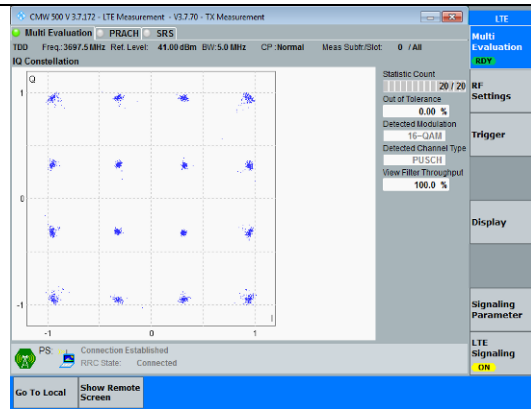
### B48-5M-IQ-M-Q64



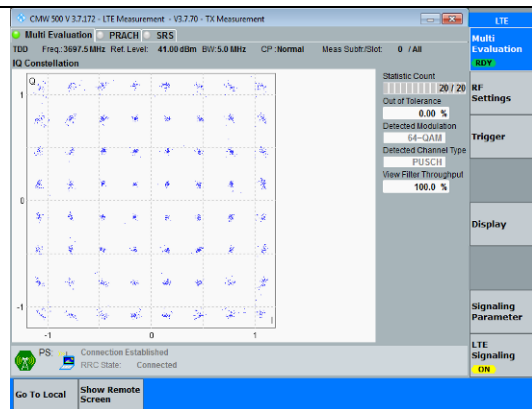
### B48-5M-IQ-H-QPSK



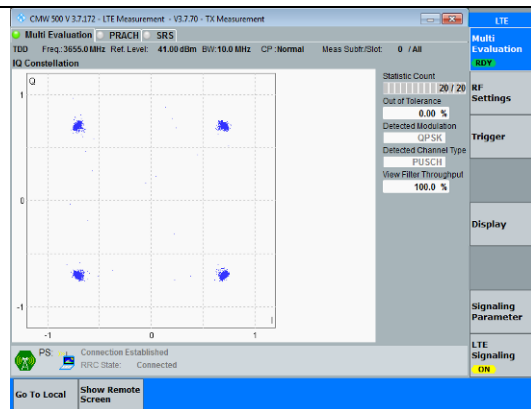
### B48-5M-IQ-H-Q16



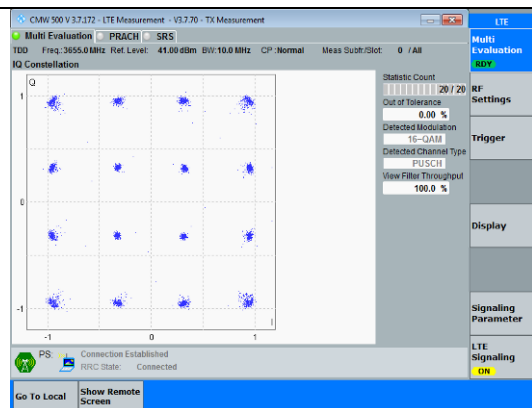
### B48-5M-IQ-H-Q64



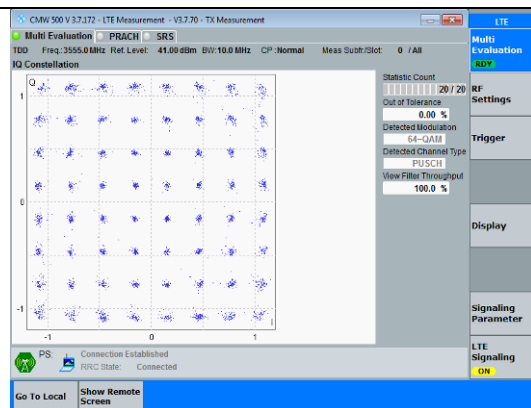
### B48-10M-IQ-L-QPSK



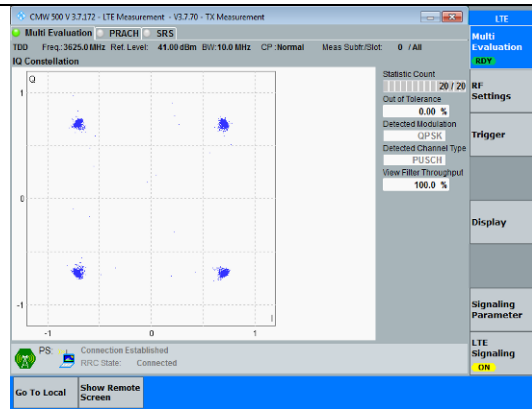
### B48-10M-IQ-L-Q16



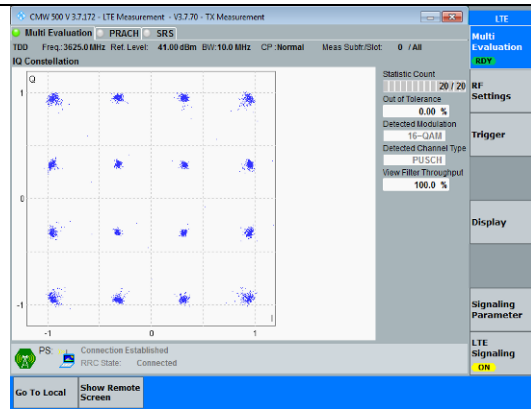
### B48-10M-IQ-L-Q64



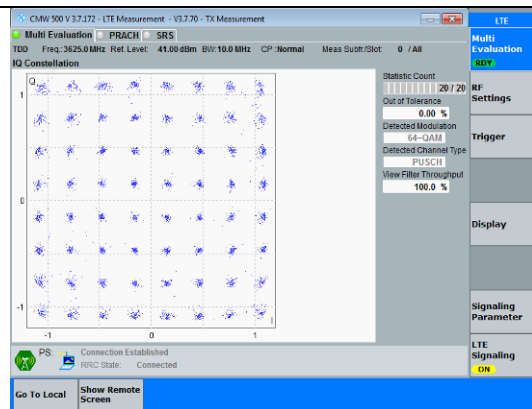
### B48-10M-IQ-M-QPSK



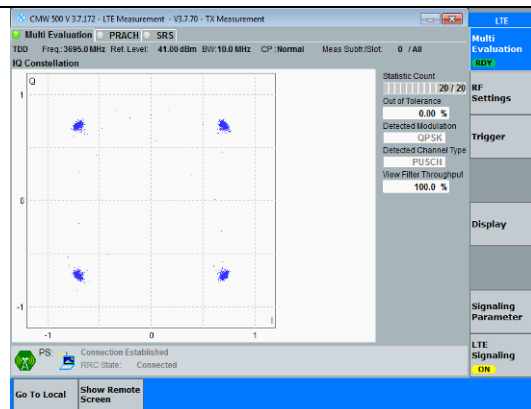
### B48-10M-IQ-M-Q16



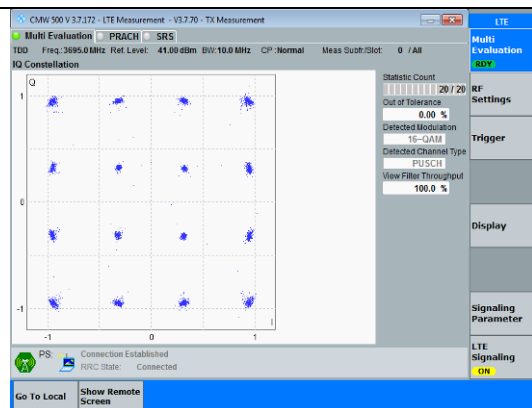
### B48-10M-IQ-M-Q64



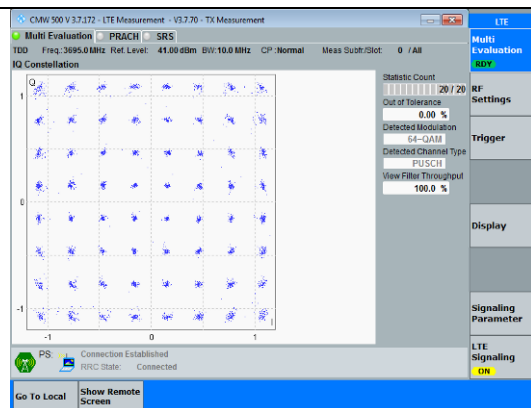
### B48-10M-IQ-H-QPSK



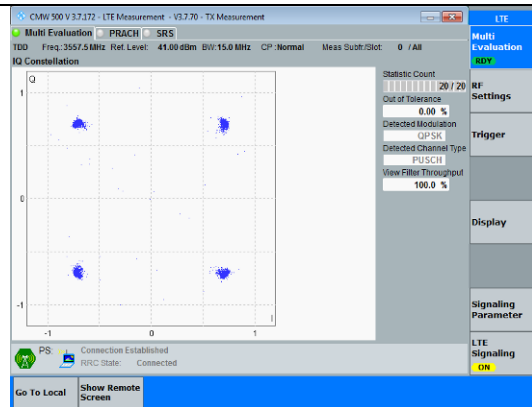
### B48-10M-IQ-H-Q16



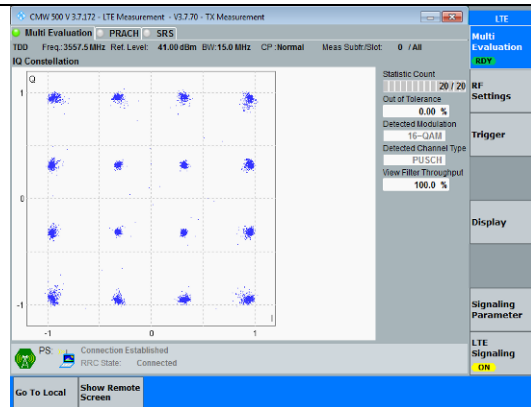
### B48-10M-IQ-H-Q64



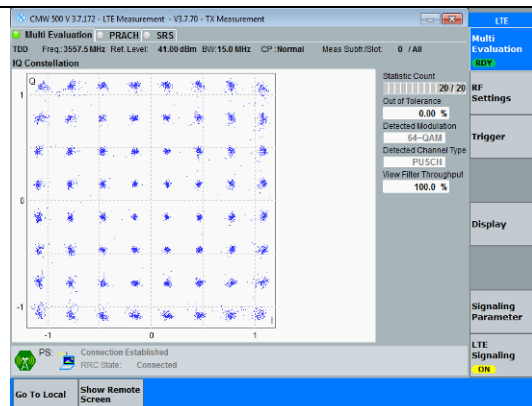
### B48-15M-IQ-L-QPSK



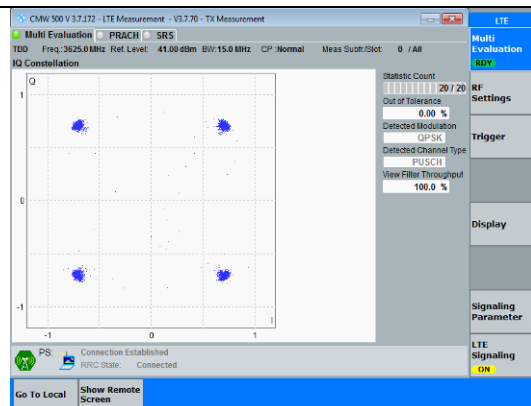
### B48-15M-IQ-L-Q16



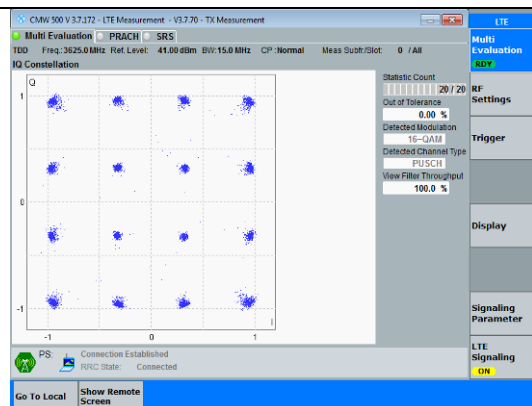
### B48-15M-IQ-L-Q64



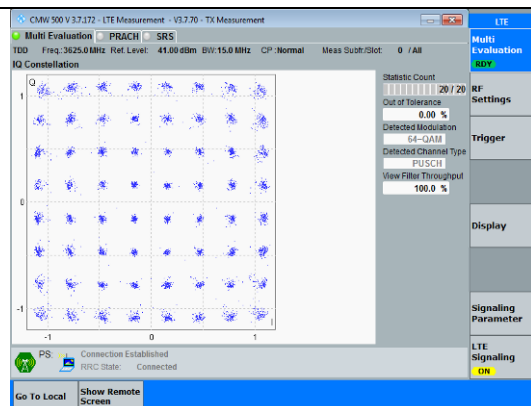
### B48-15M-IQ-M-QPSK



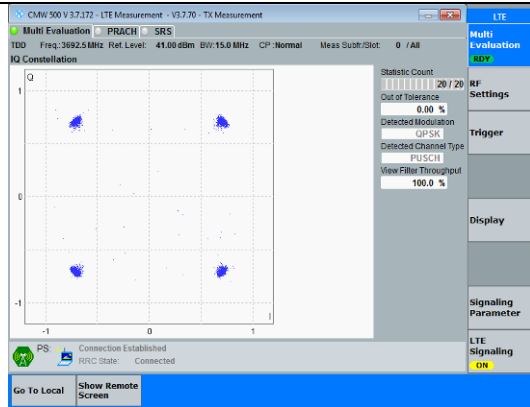
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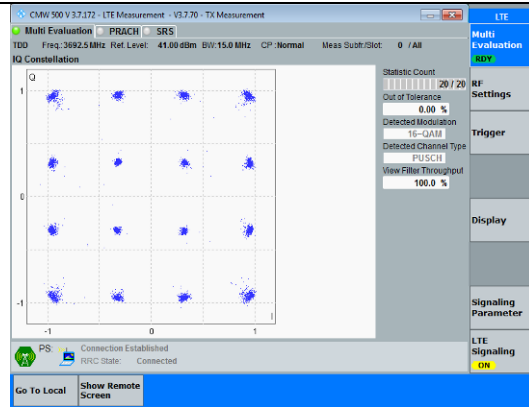
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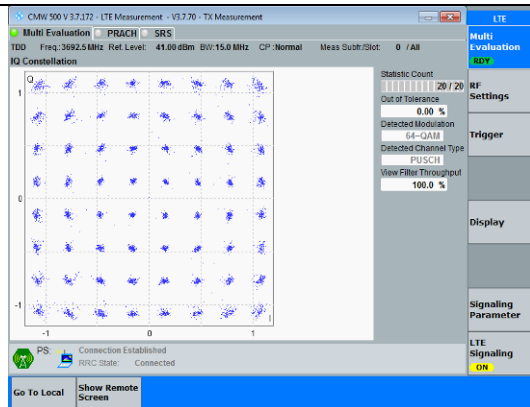
### B48-15M-IQ-H-QPSK



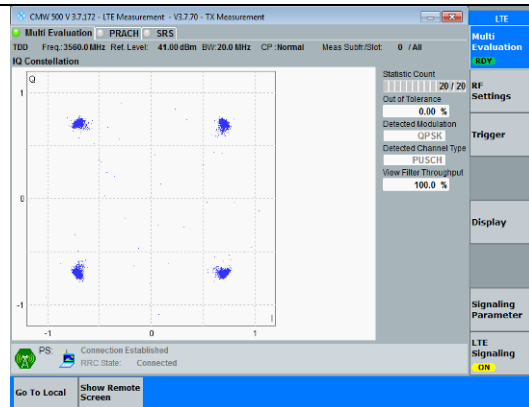
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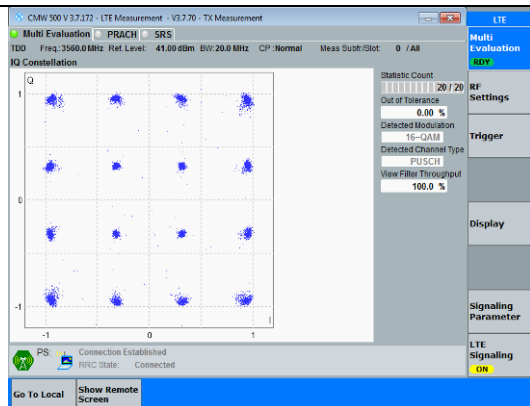
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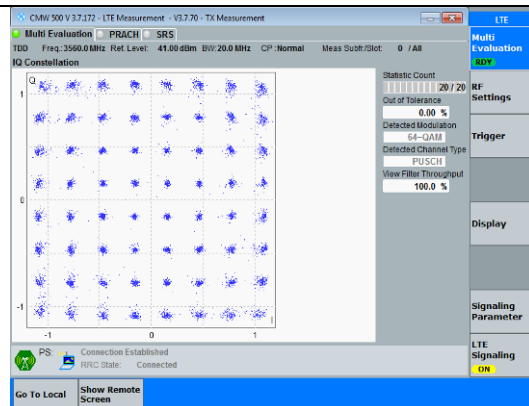
### B48-20M-IQ-L-QPSK



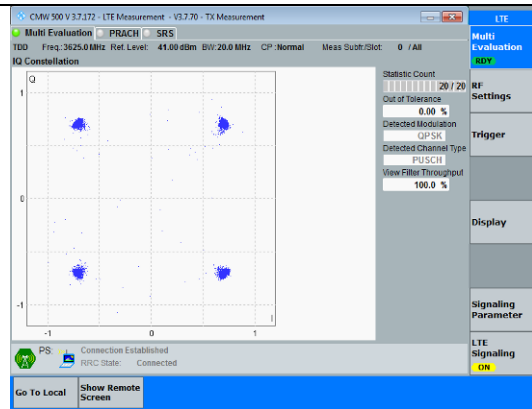
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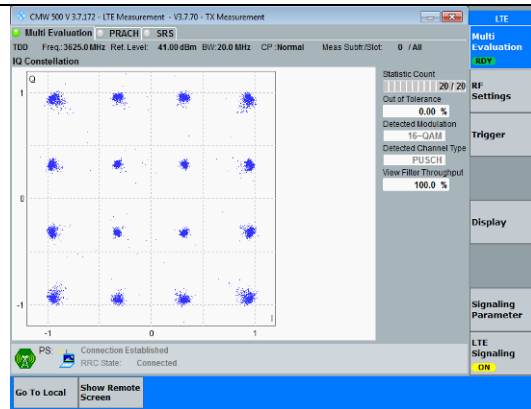
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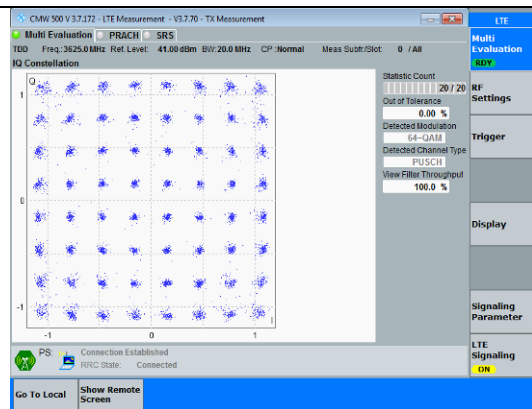
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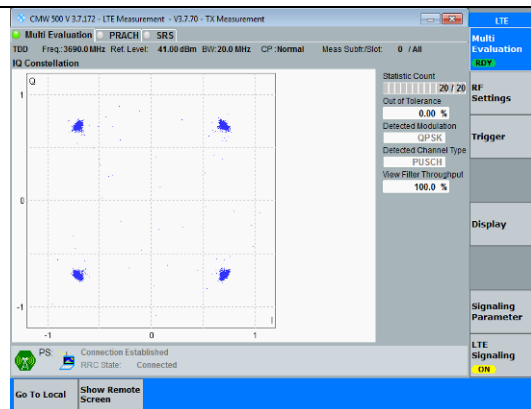
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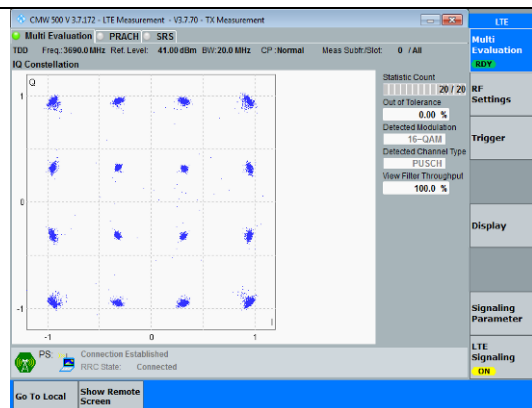
### B48-20M-IQ-M-Q64



### B48-20M-IQ-H-QPSK



### B48-20M-IQ-H-Q16



### B48-20M-IQ-H-Q64

