

B66 15M QPSK 75@0 CH 132597



B66 15M 16QAM 75@0 CH 132597



B66 10M QPSK 50@0 CH 132022



B66 10M 16QAM 50@0 CH 132022



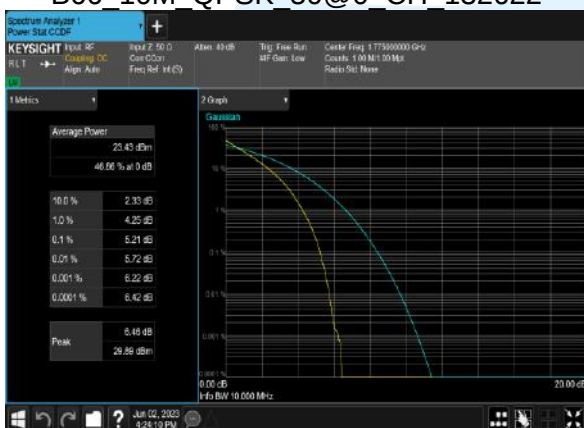
B66 10M QPSK 50@0 CH 132322



B66 10M 16QAM 50@0 CH 132322



B66 10M QPSK 50@0 CH 132622



B66 10M 16QAM 50@0 CH 132622



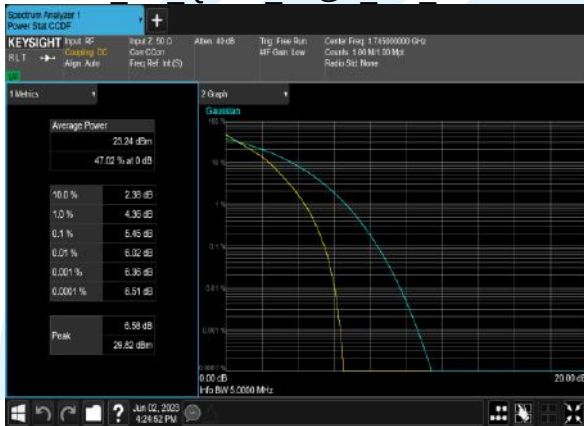
B66 5M QPSK 25@0 CH 131997



B66 5M 16QAM 25@0 CH 131997



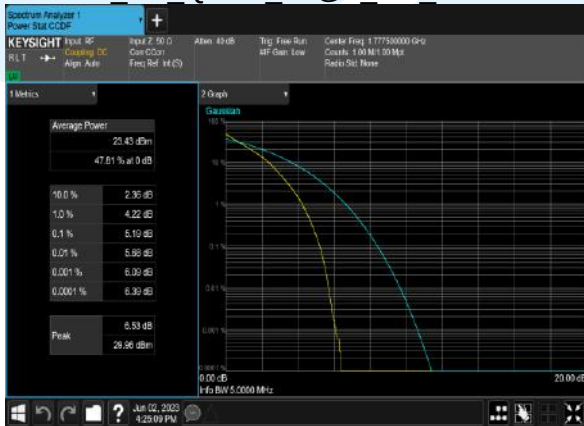
B66 5M QPSK 25@0 CH 132322



B66 5M 16QAM 25@0 CH 132322



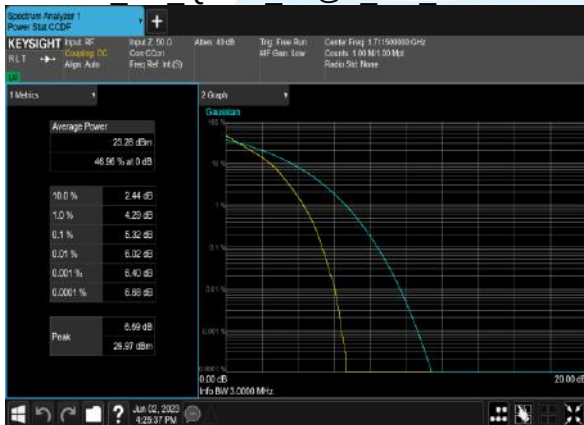
B66 5M QPSK 25@0 CH 132647



B66 5M 16QAM 25@0 CH 132647



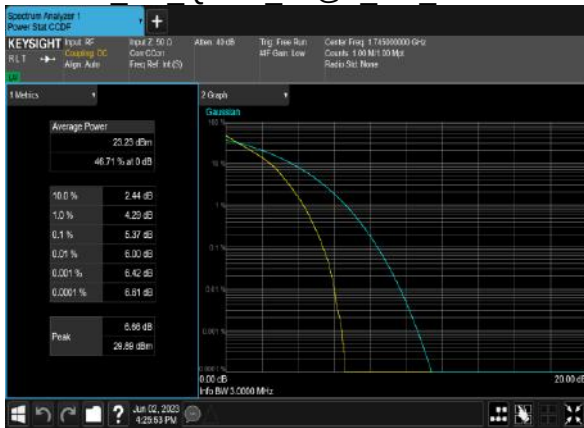
B66 3M QPSK 15@0 CH 131987



B66 3M 16QAM 15@0 CH 131987



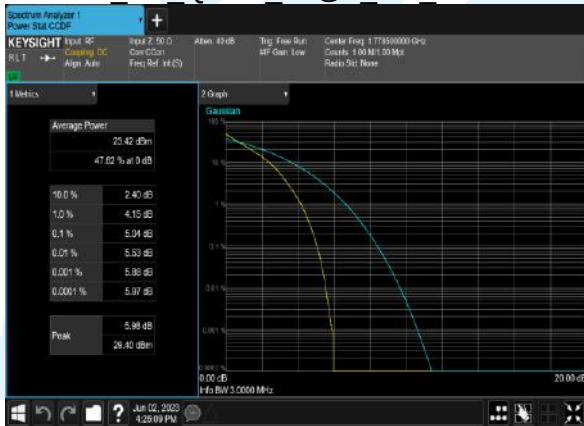
B66 3M QPSK 15@0 CH 132322



B66 3M 16QAM 15@0 CH 132322



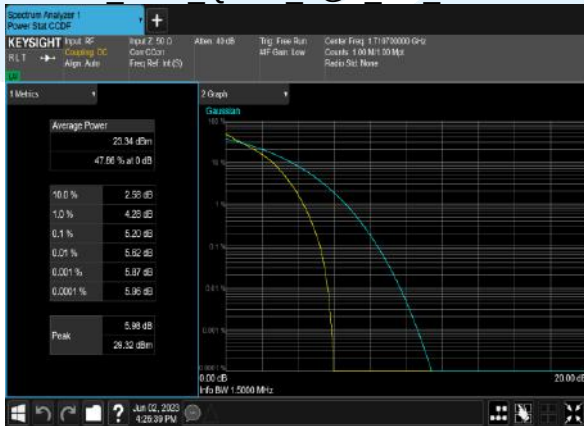
B66 3M QPSK 15@0 CH 132657



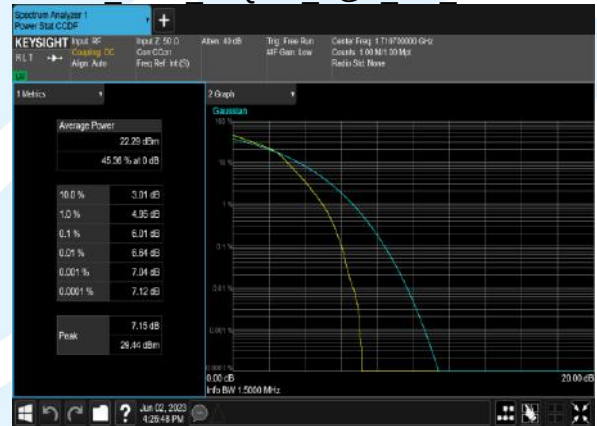
B66 3M 16QAM 15@0 CH 132657



B66 1.4M QPSK 6@0 CH 131979



B66 1.4M 16QAM 6@0 CH 131979



B66 1.4M QPSK 6@0 CH 132322



B66 1.4M 16QAM 6@0 CH 132322



B66 1.4M QPSK 6@0 CH 132665



B66 1.4M 16QAM 6@0 CH 132665

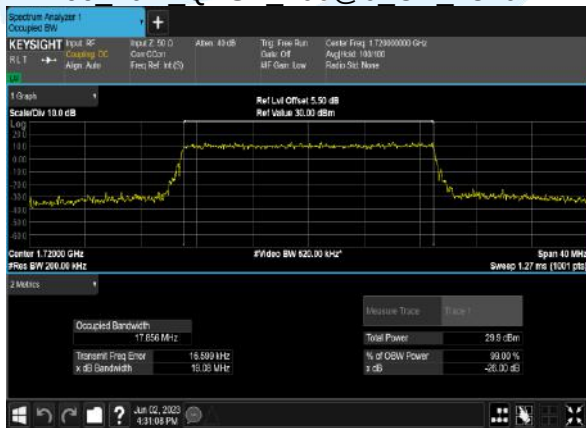


## Occupied Bandwidth

| Band | Bandwidth (MHz) | Channel | Freq (MHz) | Modulation | RB    | OBW (MHz) | 26dB BW (MHz) |
|------|-----------------|---------|------------|------------|-------|-----------|---------------|
| 66   | 20.0            | 132072  | 1720.0     | QPSK       | 100@0 | 17.856    | 19.08         |
| 66   | 20.0            | 132072  | 1720.0     | 16QAM      | 100@0 | 17.866    | 18.88         |
| 66   | 20.0            | 132322  | 1745.0     | QPSK       | 100@0 | 17.844    | 19.15         |
| 66   | 20.0            | 132322  | 1745.0     | 16QAM      | 100@0 | 17.830    | 19.02         |
| 66   | 20.0            | 132572  | 1770.0     | QPSK       | 100@0 | 17.826    | 19.01         |
| 66   | 20.0            | 132572  | 1770.0     | 16QAM      | 100@0 | 17.876    | 18.93         |
| 66   | 15.0            | 132047  | 1717.5     | QPSK       | 75@0  | 13.437    | 14.53         |
| 66   | 15.0            | 132047  | 1717.5     | 16QAM      | 75@0  | 13.439    | 14.35         |
| 66   | 15.0            | 132322  | 1745.0     | QPSK       | 75@0  | 13.416    | 14.44         |
| 66   | 15.0            | 132322  | 1745.0     | 16QAM      | 75@0  | 13.436    | 14.60         |
| 66   | 15.0            | 132597  | 1772.5     | QPSK       | 75@0  | 13.407    | 14.23         |
| 66   | 15.0            | 132597  | 1772.5     | 16QAM      | 75@0  | 13.436    | 14.32         |
| 66   | 10.0            | 132022  | 1715.0     | QPSK       | 50@0  | 8.9341    | 9.608         |
| 66   | 10.0            | 132022  | 1715.0     | 16QAM      | 50@0  | 8.9434    | 9.630         |
| 66   | 10.0            | 132322  | 1745.0     | QPSK       | 50@0  | 8.9471    | 9.778         |
| 66   | 10.0            | 132322  | 1745.0     | 16QAM      | 50@0  | 8.9442    | 9.657         |
| 66   | 10.0            | 132622  | 1775.0     | QPSK       | 50@0  | 8.9508    | 9.611         |
| 66   | 10.0            | 132622  | 1775.0     | 16QAM      | 50@0  | 8.9434    | 9.532         |
| 66   | 5.0             | 131997  | 1712.5     | QPSK       | 25@0  | 4.4575    | 4.973         |
| 66   | 5.0             | 131997  | 1712.5     | 16QAM      | 25@0  | 4.4657    | 4.955         |
| 66   | 5.0             | 132322  | 1745.0     | QPSK       | 25@0  | 4.4623    | 5.034         |
| 66   | 5.0             | 132322  | 1745.0     | 16QAM      | 25@0  | 4.4722    | 5.002         |
| 66   | 5.0             | 132647  | 1777.5     | QPSK       | 25@0  | 4.4624    | 4.920         |
| 66   | 5.0             | 132647  | 1777.5     | 16QAM      | 25@0  | 4.4600    | 4.944         |
| 66   | 3.0             | 131987  | 1711.5     | QPSK       | 15@0  | 2.6804    | 2.858         |
| 66   | 3.0             | 131987  | 1711.5     | 16QAM      | 15@0  | 2.6735    | 2.842         |
| 66   | 3.0             | 132322  | 1745.0     | QPSK       | 15@0  | 2.6724    | 2.823         |
| 66   | 3.0             | 132322  | 1745.0     | 16QAM      | 15@0  | 2.6687    | 2.825         |
| 66   | 3.0             | 132657  | 1778.5     | QPSK       | 15@0  | 2.6717    | 2.842         |
| 66   | 3.0             | 132657  | 1778.5     | 16QAM      | 15@0  | 2.6788    | 2.847         |
| 66   | 1.4             | 131979  | 1710.7     | QPSK       | 6@0   | 1.0763    | 1.233         |
| 66   | 1.4             | 131979  | 1710.7     | 16QAM      | 6@0   | 1.0768    | 1.238         |
| 66   | 1.4             | 132322  | 1745.0     | QPSK       | 6@0   | 1.0752    | 1.244         |
| 66   | 1.4             | 132322  | 1745.0     | 16QAM      | 6@0   | 1.0760    | 1.258         |
| 66   | 1.4             | 132665  | 1779.3     | QPSK       | 6@0   | 1.0774    | 1.242         |
| 66   | 1.4             | 132665  | 1779.3     | 16QAM      | 6@0   | 1.0737    | 1.213         |

## Test Graphs

B66 20M QPSK 100@0 CH 132072



B66 20M 16QAM 100@0 CH 132072



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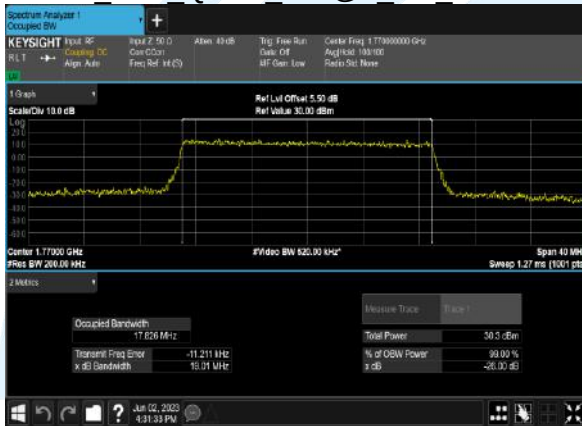
B66\_20M\_QPSK\_100@0\_CH\_132322



B66\_20M\_16QAM\_100@0\_CH\_132322



B66\_20M\_QPSK\_100@0\_CH\_132572



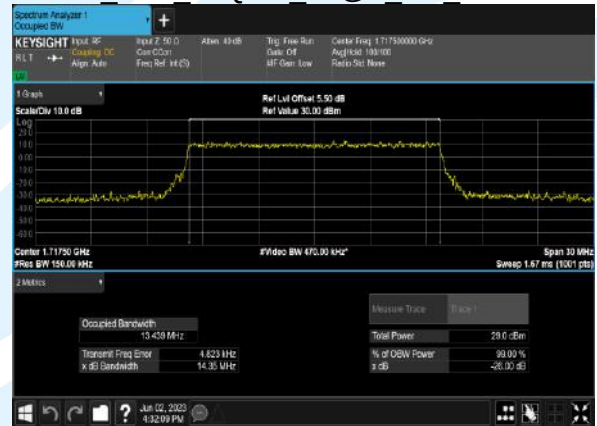
B66\_20M\_16QAM\_100@0\_CH\_132572



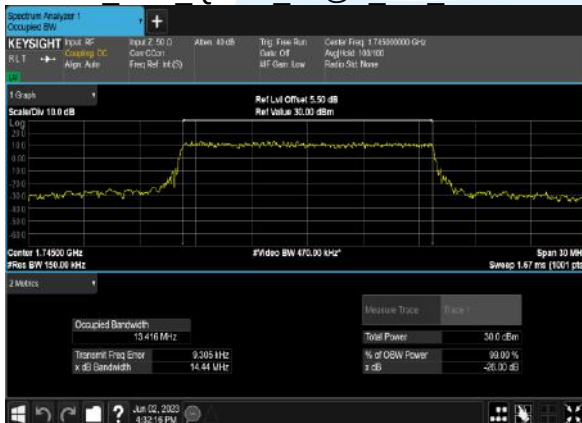
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B66\_15M\_16QAM\_75@0\_CH\_132047



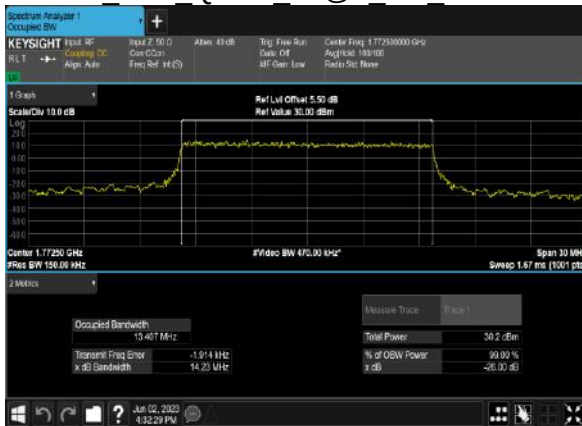
B66\_15M\_QPSK\_75@0\_CH\_132322



B66\_15M\_16QAM\_75@0\_CH\_132322



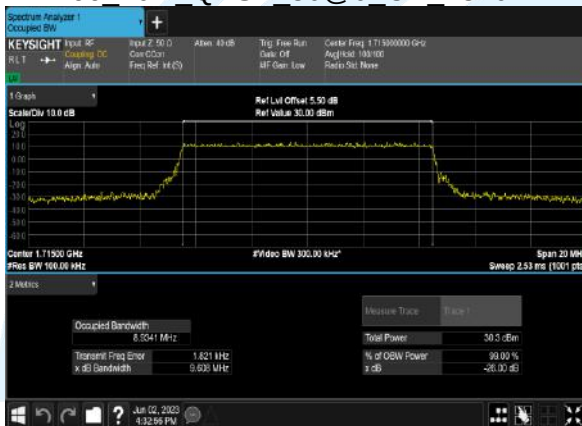
B66 15M QPSK 75@0 CH 132597



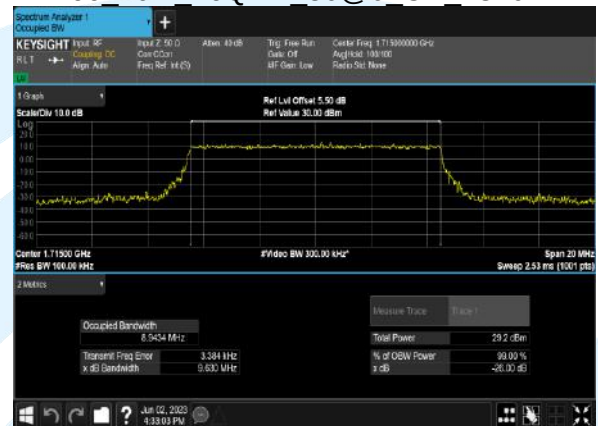
B66 15M 16QAM 75@0 CH 132597



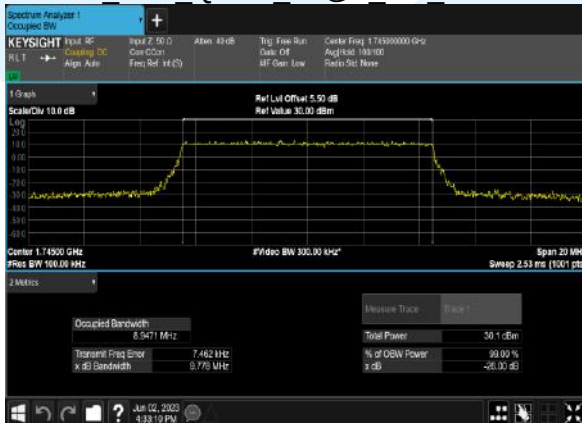
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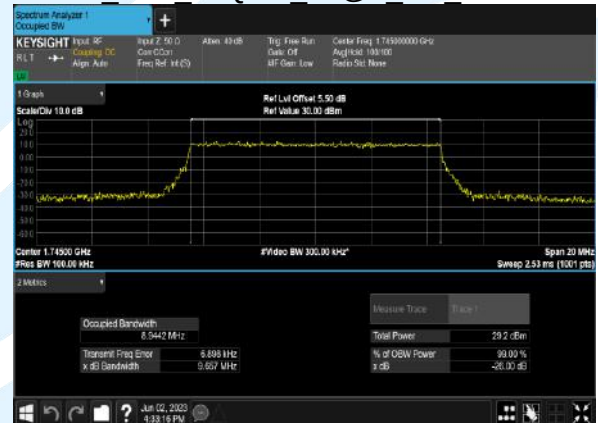
B66 10M 16QAM 50@0 CH 132022



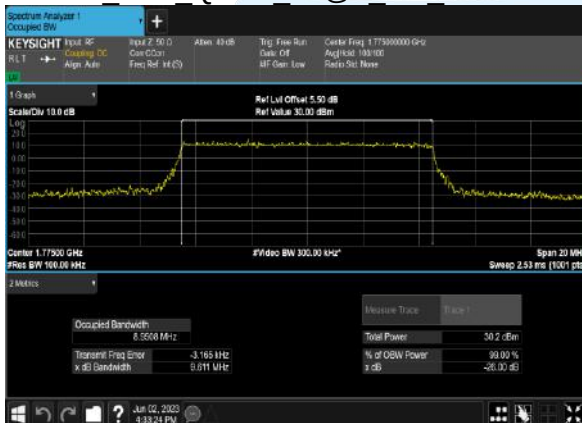
B66 10M QPSK 50@0 CH 132322



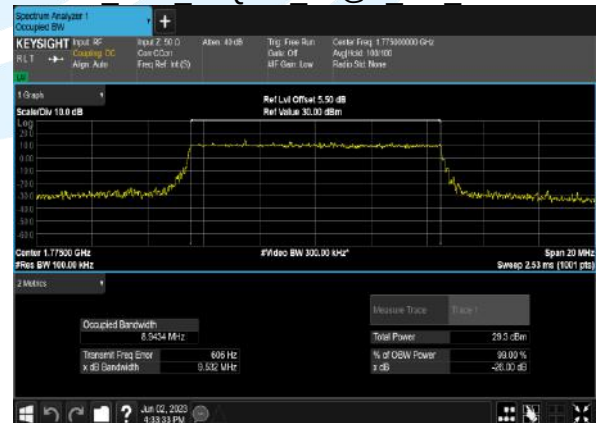
B66 10M 16QAM 50@0 CH 132322



B66 10M QPSK 50@0 CH 132622



B66 10M 16QAM 50@0 CH 132622



B66 5M QPSK 25@0 CH 131997



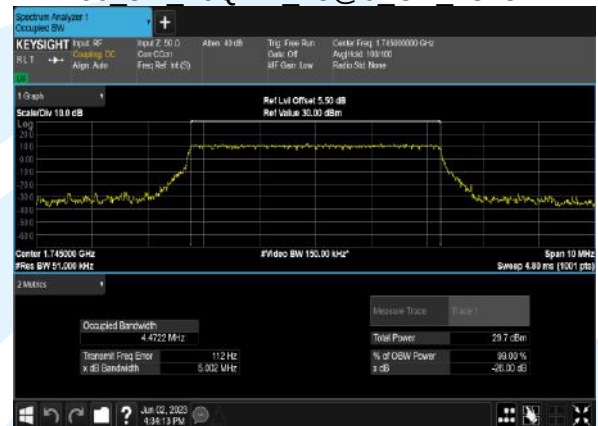
B66 5M 16QAM 25@0 CH 131997



B66 5M QPSK 25@0 CH 132322



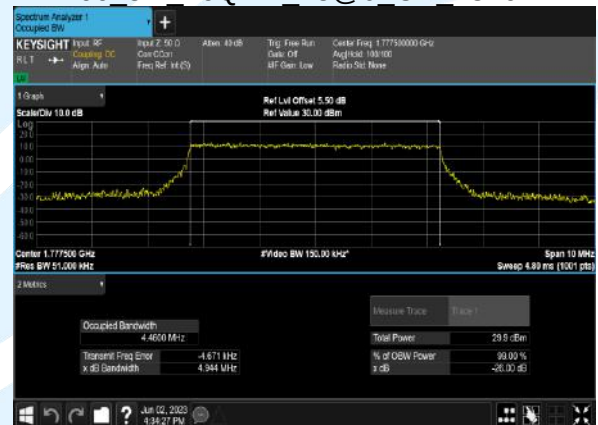
B66 5M 16QAM 25@0 CH 132322



B66 5M QPSK 25@0 CH 132647



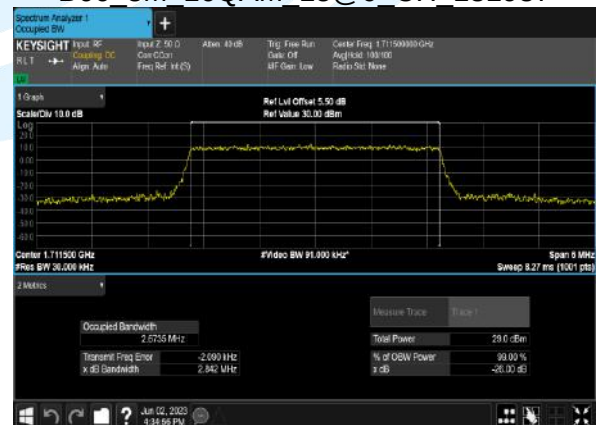
B66 5M 16QAM 25@0 CH 132647



B66 3M QPSK 15@0 CH 131987



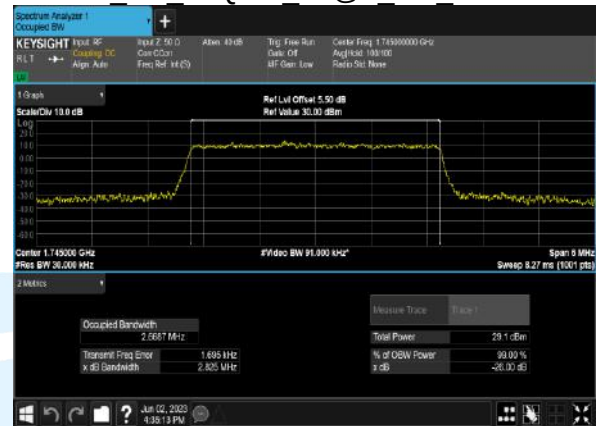
B66 3M 16QAM 15@0 CH 131987



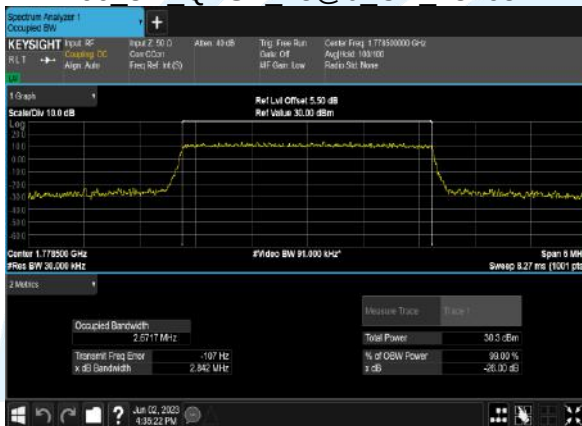
B66 3M QPSK 15@0 CH 132322



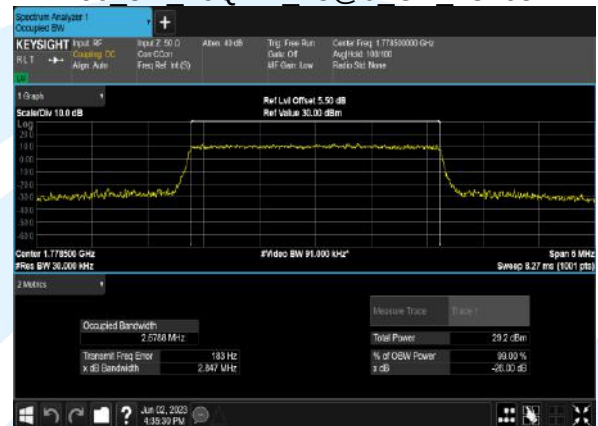
B66 3M 16QAM 15@0 CH 132322



B66 3M QPSK 15@0 CH 132657



B66 3M 16QAM 15@0 CH 132657



B66 1.4M QPSK 6@0 CH 131979



B66 1.4M 16QAM 6@0 CH 131979



B66 1.4M QPSK 6@0 CH 132322



B66 1.4M 16QAM 6@0 CH 132322



B66 1.4M QPSK 6@0 CH 132665



B66 1.4M 16QAM 6@0 CH 132665



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## Conducted Spurious Emissions

| Band | Bandwidth (MHz) | Channel | Freq (MHz) | Modulation | RB  | Result (dBm) | Limit (dBm) | Verdict |
|------|-----------------|---------|------------|------------|-----|--------------|-------------|---------|
| 66   | 20.0            | 132072  | 1720.0     | QPSK       | 1@0 | -29.61       | -13         | PASS    |
| 66   | 20.0            | 132072  | 1720.0     | 16QAM      | 1@0 | -30.13       | -13         | PASS    |
| 66   | 20.0            | 132322  | 1745.0     | QPSK       | 1@0 | -29.64       | -13         | PASS    |
| 66   | 20.0            | 132322  | 1745.0     | 16QAM      | 1@0 | -29.89       | -13         | PASS    |
| 66   | 20.0            | 132572  | 1770.0     | QPSK       | 1@0 | -29.68       | -13         | PASS    |
| 66   | 20.0            | 132572  | 1770.0     | 16QAM      | 1@0 | -29.78       | -13         | PASS    |
| 66   | 15.0            | 132047  | 1717.5     | QPSK       | 1@0 | -29.48       | -13         | PASS    |
| 66   | 15.0            | 132047  | 1717.5     | 16QAM      | 1@0 | -29.88       | -13         | PASS    |
| 66   | 15.0            | 132322  | 1745.0     | QPSK       | 1@0 | -29.63       | -13         | PASS    |
| 66   | 15.0            | 132322  | 1745.0     | 16QAM      | 1@0 | -29.55       | -13         | PASS    |
| 66   | 15.0            | 132597  | 1772.5     | QPSK       | 1@0 | -29.23       | -13         | PASS    |
| 66   | 15.0            | 132597  | 1772.5     | 16QAM      | 1@0 | -29.62       | -13         | PASS    |
| 66   | 10.0            | 132022  | 1715.0     | QPSK       | 1@0 | -29.53       | -13         | PASS    |
| 66   | 10.0            | 132022  | 1715.0     | 16QAM      | 1@0 | -29.96       | -13         | PASS    |
| 66   | 10.0            | 132322  | 1745.0     | QPSK       | 1@0 | -29.51       | -13         | PASS    |
| 66   | 10.0            | 132322  | 1745.0     | 16QAM      | 1@0 | -30.37       | -13         | PASS    |
| 66   | 10.0            | 132622  | 1775.0     | QPSK       | 1@0 | -29.55       | -13         | PASS    |
| 66   | 10.0            | 132622  | 1775.0     | 16QAM      | 1@0 | -29.61       | -13         | PASS    |
| 66   | 5.0             | 131997  | 1712.5     | QPSK       | 1@0 | -29.43       | -13         | PASS    |
| 66   | 5.0             | 131997  | 1712.5     | 16QAM      | 1@0 | -29.99       | -13         | PASS    |
| 66   | 5.0             | 132322  | 1745.0     | QPSK       | 1@0 | -28.96       | -13         | PASS    |
| 66   | 5.0             | 132322  | 1745.0     | 16QAM      | 1@0 | -29.71       | -13         | PASS    |
| 66   | 5.0             | 132647  | 1777.5     | QPSK       | 1@0 | -29.97       | -13         | PASS    |
| 66   | 5.0             | 132647  | 1777.5     | 16QAM      | 1@0 | -29.76       | -13         | PASS    |
| 66   | 3.0             | 131987  | 1711.5     | QPSK       | 1@0 | -29.63       | -13         | PASS    |
| 66   | 3.0             | 131987  | 1711.5     | 16QAM      | 1@0 | -29.91       | -13         | PASS    |
| 66   | 3.0             | 132322  | 1745.0     | QPSK       | 1@0 | -29.63       | -13         | PASS    |
| 66   | 3.0             | 132322  | 1745.0     | 16QAM      | 1@0 | -30.17       | -13         | PASS    |
| 66   | 3.0             | 132657  | 1778.5     | QPSK       | 1@0 | -29.07       | -13         | PASS    |
| 66   | 3.0             | 132657  | 1778.5     | 16QAM      | 1@0 | -30.08       | -13         | PASS    |
| 66   | 1.4             | 131979  | 1710.7     | QPSK       | 1@0 | -29.87       | -13         | PASS    |
| 66   | 1.4             | 131979  | 1710.7     | 16QAM      | 1@0 | -30.14       | -13         | PASS    |
| 66   | 1.4             | 132322  | 1745.0     | QPSK       | 1@0 | -30.26       | -13         | PASS    |
| 66   | 1.4             | 132322  | 1745.0     | 16QAM      | 1@0 | -29.56       | -13         | PASS    |
| 66   | 1.4             | 132665  | 1779.3     | QPSK       | 1@0 | -29.9        | -13         | PASS    |
| 66   | 1.4             | 132665  | 1779.3     | 16QAM      | 1@0 | -30.02       | -13         | PASS    |

## Test Graphs

B66 20M QPSK 1@0 CH 132072



B66 20M 16QAM 1@0 CH 132072



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B66\_20M QPSK 1@0 CH 132322



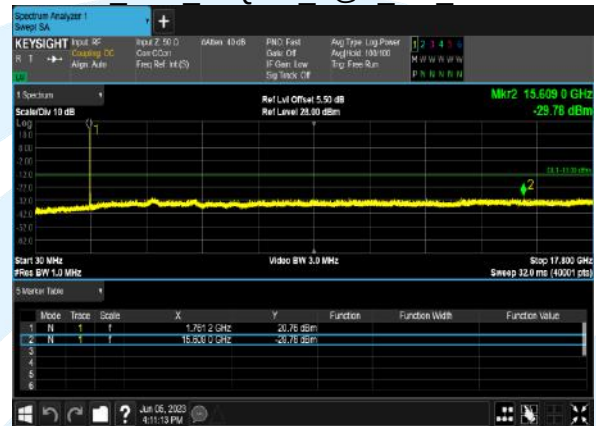
B66\_20M 16QAM 1@0 CH 132322



B66\_20M QPSK 1@0 CH 132572



B66\_20M 16QAM 1@0 CH 132572



B66\_15M QPSK 1@0 CH 132047



B66\_15M 16QAM 1@0 CH 132047



B66\_15M QPSK 1@0 CH 132322



B66\_15M 16QAM 1@0 CH 132322



B66\_15M QPSK 1@0 CH 132597



B66\_15M 16QAM 1@0 CH 132597



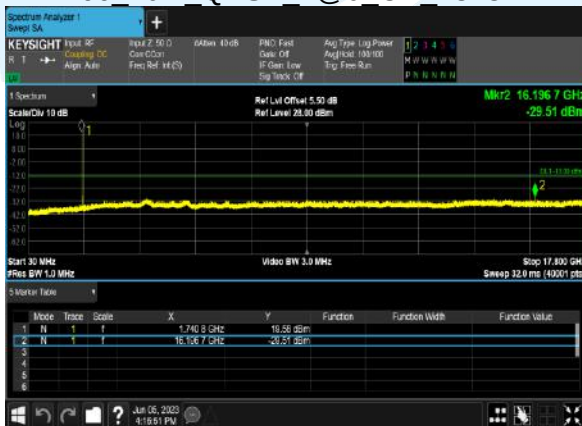
B66\_10M QPSK 1@0 CH 132022



B66\_10M 16QAM 1@0 CH 132022



B66\_10M QPSK 1@0 CH 132322



B66\_10M 16QAM 1@0 CH 132322



B66\_10M QPSK 1@0 CH 132622



B66\_10M 16QAM 1@0 CH 132622



B66 5M QPSK 1@0 CH 131997



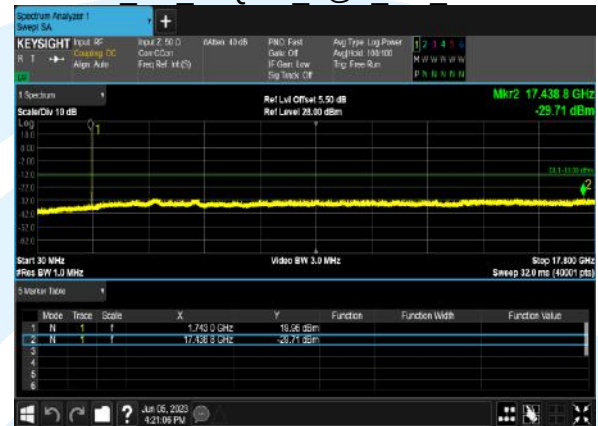
B66 5M 16QAM 1@0 CH 131997



B66 5M QPSK 1@0 CH 132322



B66 5M 16QAM 1@0 CH 132322



B66 5M QPSK 1@0 CH 132647



B66 5M 16QAM 1@0 CH 132647



B66 3M QPSK 1@0 CH 131987



B66 3M 16QAM 1@0 CH 131987



B66 3M QPSK 1@0 CH 132322



B66 3M 16QAM 1@0 CH 132322



B66 3M QPSK 1@0 CH 132657



B66 3M 16QAM 1@0 CH 132657



B66 1.4M QPSK 1@0 CH 131979



B66 1.4M 16QAM 1@0 CH 131979



B66 1.4M QPSK 1@0 CH 132322



B66 1.4M 16QAM 1@0 CH 132322



B66 1.4M QPSK 1@0 CH 132665



B66 1.4M 16QAM 1@0 CH 132665



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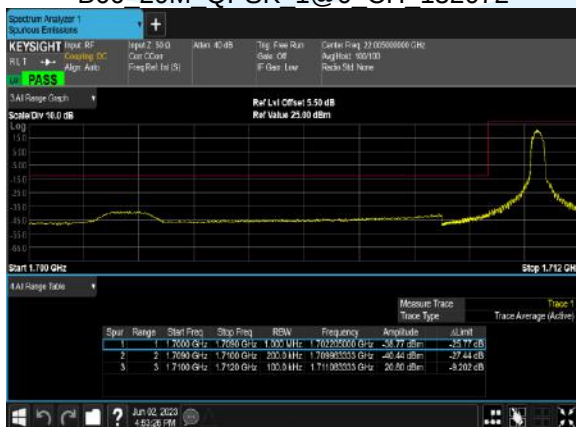
UTTR-RF-FCC4G-V1.1

## Conducted Band Edge

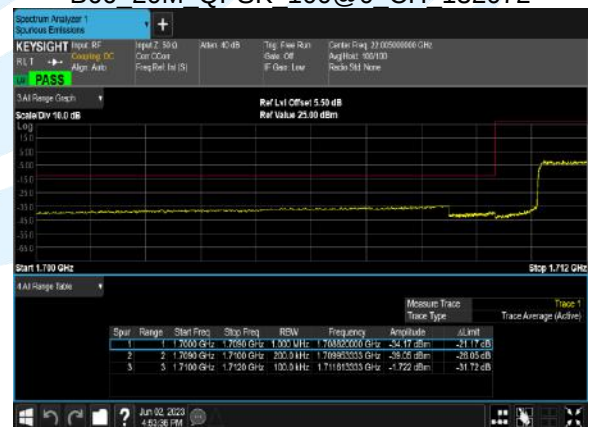
| Band | Bandwidth (MHz) | Channel | Freq (MHz) | Modulation | RB    | Result    | Verdict |
|------|-----------------|---------|------------|------------|-------|-----------|---------|
| 66   | 20.0            | 132072  | 1720.0     | QPSK       | 1@0   | see graph | PASS    |
| 66   | 20.0            | 132072  | 1720.0     | QPSK       | 100@0 | see graph | PASS    |
| 66   | 20.0            | 132072  | 1720.0     | 16QAM      | 1@0   | see graph | PASS    |
| 66   | 20.0            | 132072  | 1720.0     | 16QAM      | 100@0 | see graph | PASS    |
| 66   | 20.0            | 132572  | 1770.0     | QPSK       | 1@99  | see graph | PASS    |
| 66   | 20.0            | 132572  | 1770.0     | QPSK       | 100@0 | see graph | PASS    |
| 66   | 20.0            | 132572  | 1770.0     | 16QAM      | 1@99  | see graph | PASS    |
| 66   | 20.0            | 132572  | 1770.0     | 16QAM      | 100@0 | see graph | PASS    |
| 66   | 15.0            | 132047  | 1717.5     | QPSK       | 1@0   | see graph | PASS    |
| 66   | 15.0            | 132047  | 1717.5     | QPSK       | 75@0  | see graph | PASS    |
| 66   | 15.0            | 132047  | 1717.5     | 16QAM      | 1@0   | see graph | PASS    |
| 66   | 15.0            | 132047  | 1717.5     | 16QAM      | 75@0  | see graph | PASS    |
| 66   | 15.0            | 132597  | 1772.5     | QPSK       | 1@74  | see graph | PASS    |
| 66   | 15.0            | 132597  | 1772.5     | QPSK       | 75@0  | see graph | PASS    |
| 66   | 15.0            | 132597  | 1772.5     | 16QAM      | 1@74  | see graph | PASS    |
| 66   | 15.0            | 132597  | 1772.5     | 16QAM      | 75@0  | see graph | PASS    |
| 66   | 10.0            | 132022  | 1715.0     | QPSK       | 1@0   | see graph | PASS    |
| 66   | 10.0            | 132022  | 1715.0     | QPSK       | 50@0  | see graph | PASS    |
| 66   | 10.0            | 132022  | 1715.0     | 16QAM      | 1@0   | see graph | PASS    |
| 66   | 10.0            | 132022  | 1715.0     | 16QAM      | 50@0  | see graph | PASS    |
| 66   | 10.0            | 132622  | 1775.0     | QPSK       | 1@49  | see graph | PASS    |
| 66   | 10.0            | 132622  | 1775.0     | QPSK       | 50@0  | see graph | PASS    |
| 66   | 10.0            | 132622  | 1775.0     | 16QAM      | 1@49  | see graph | PASS    |
| 66   | 10.0            | 132622  | 1775.0     | 16QAM      | 50@0  | see graph | PASS    |
| 66   | 5.0             | 131997  | 1712.5     | QPSK       | 1@0   | see graph | PASS    |
| 66   | 5.0             | 131997  | 1712.5     | QPSK       | 25@0  | see graph | PASS    |
| 66   | 5.0             | 131997  | 1712.5     | 16QAM      | 1@0   | see graph | PASS    |
| 66   | 5.0             | 131997  | 1712.5     | 16QAM      | 25@0  | see graph | PASS    |
| 66   | 5.0             | 132647  | 1777.5     | QPSK       | 1@24  | see graph | PASS    |
| 66   | 5.0             | 132647  | 1777.5     | QPSK       | 25@0  | see graph | PASS    |
| 66   | 5.0             | 132647  | 1777.5     | 16QAM      | 1@24  | see graph | PASS    |
| 66   | 5.0             | 132647  | 1777.5     | 16QAM      | 25@0  | see graph | PASS    |
| 66   | 3.0             | 131987  | 1711.5     | QPSK       | 1@0   | see graph | PASS    |
| 66   | 3.0             | 131987  | 1711.5     | QPSK       | 15@0  | see graph | PASS    |
| 66   | 3.0             | 131987  | 1711.5     | 16QAM      | 1@0   | see graph | PASS    |
| 66   | 3.0             | 131987  | 1711.5     | 16QAM      | 15@0  | see graph | PASS    |
| 66   | 3.0             | 132657  | 1778.5     | QPSK       | 1@14  | see graph | PASS    |
| 66   | 3.0             | 132657  | 1778.5     | QPSK       | 15@0  | see graph | PASS    |
| 66   | 3.0             | 132657  | 1778.5     | 16QAM      | 1@14  | see graph | PASS    |
| 66   | 3.0             | 132657  | 1778.5     | 16QAM      | 15@0  | see graph | PASS    |
| 66   | 1.4             | 131979  | 1710.7     | QPSK       | 1@0   | see graph | PASS    |
| 66   | 1.4             | 131979  | 1710.7     | QPSK       | 6@0   | see graph | PASS    |
| 66   | 1.4             | 131979  | 1710.7     | 16QAM      | 1@0   | see graph | PASS    |
| 66   | 1.4             | 131979  | 1710.7     | 16QAM      | 6@0   | see graph | PASS    |
| 66   | 1.4             | 132665  | 1779.3     | QPSK       | 1@5   | see graph | PASS    |
| 66   | 1.4             | 132665  | 1779.3     | QPSK       | 6@0   | see graph | PASS    |
| 66   | 1.4             | 132665  | 1779.3     | 16QAM      | 1@5   | see graph | PASS    |
| 66   | 1.4             | 132665  | 1779.3     | 16QAM      | 6@0   | see graph | PASS    |

## Test Graphs

B66 20M QPSK 1@0 CH 132072



B66 20M QPSK 100@0 CH 132072



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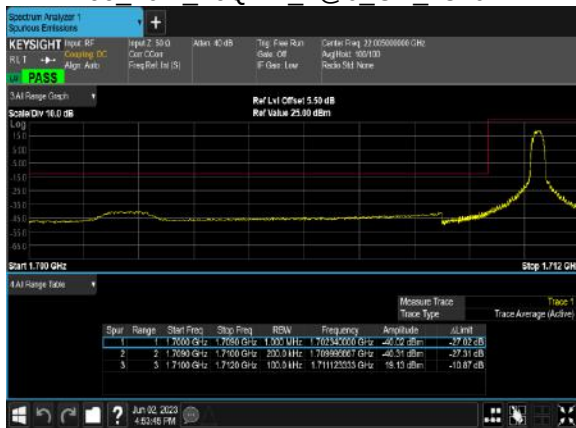
Fax: +86-755-28230886

E-mail: info@uttlab.com

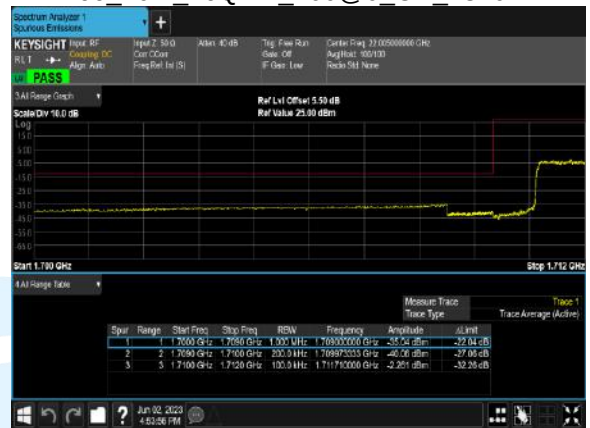
<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

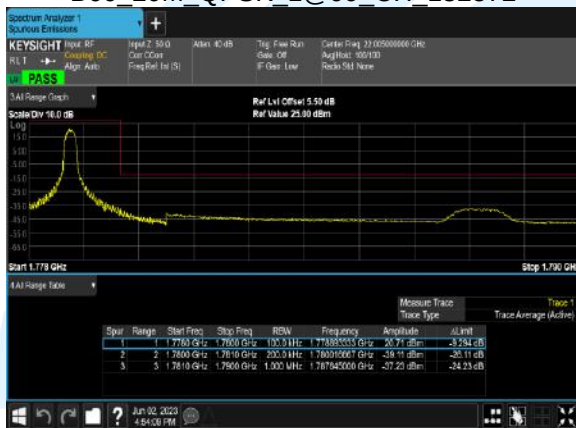
B66 20M 16QAM 1@0 CH 132072



B66 20M 16QAM 100@0 CH 132072



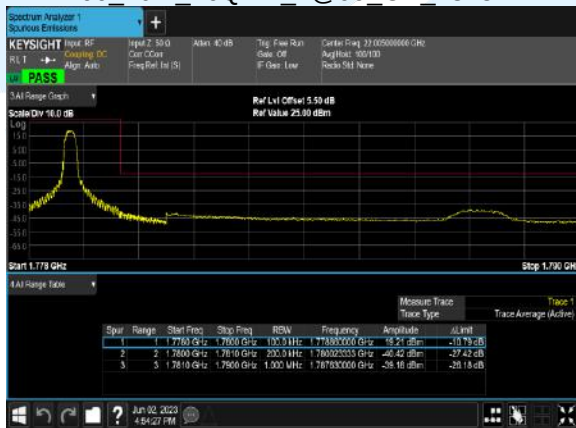
B66 20M QPSK 1@99 CH 132572



B66 20M QPSK 100@0 CH 132572



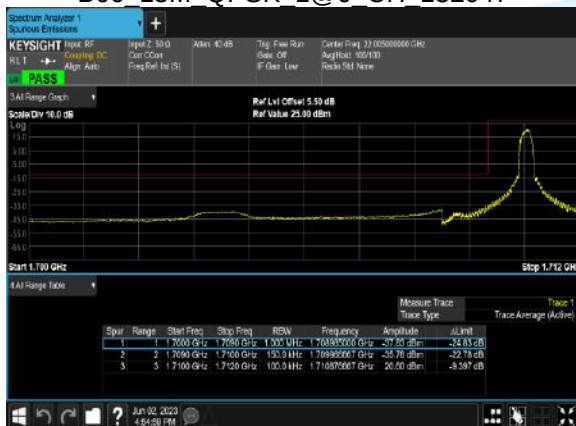
B66 20M 16QAM 1@99 CH 132572



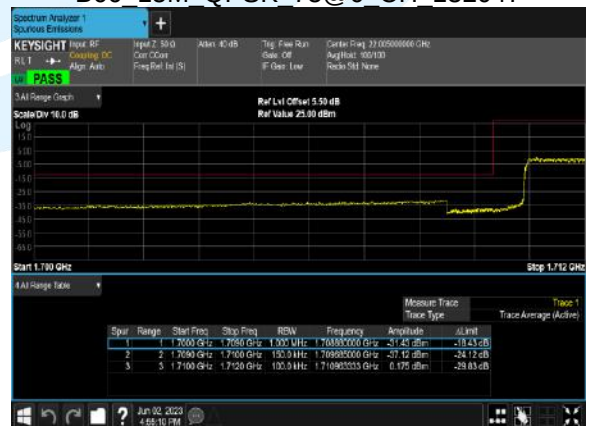
B66 20M 16QAM 100@0 CH 132572



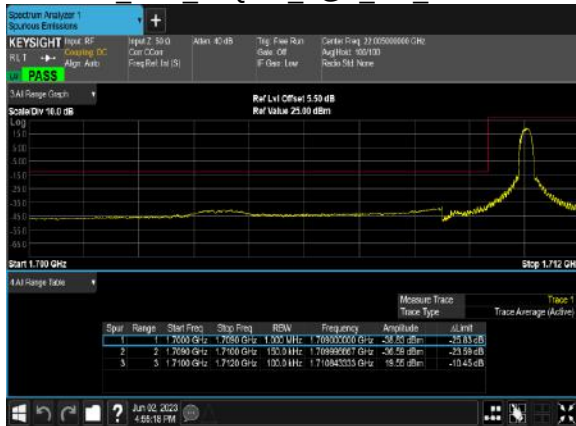
B66 15M QPSK 1@0 CH 132047



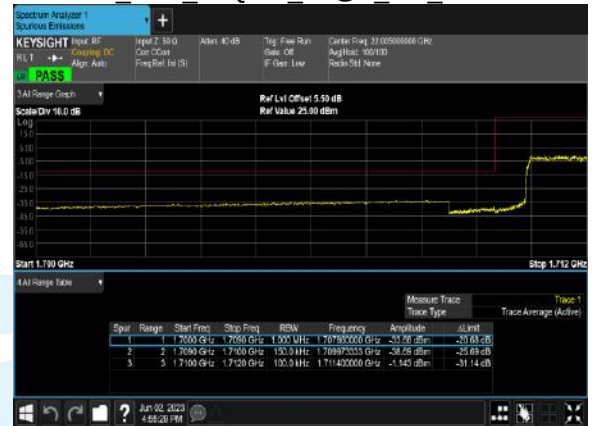
B66 15M QPSK 75@0 CH 132047



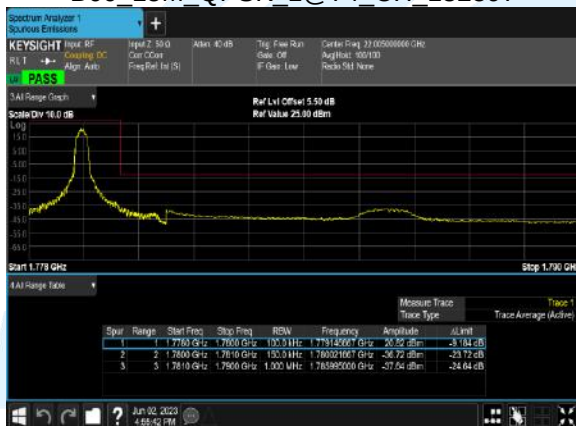
B66 15M 16QAM 1@0 CH 132047



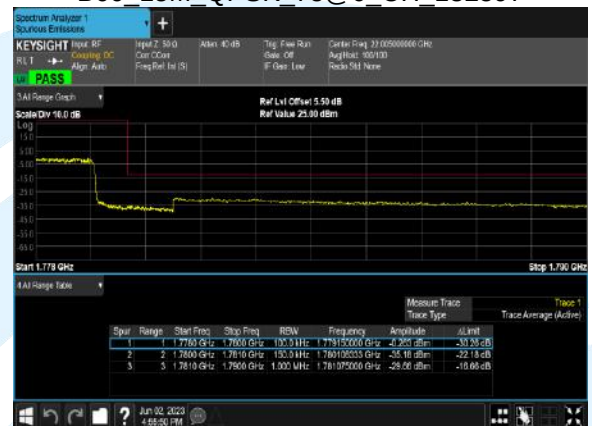
B66 15M 16QAM 75@0 CH 132047



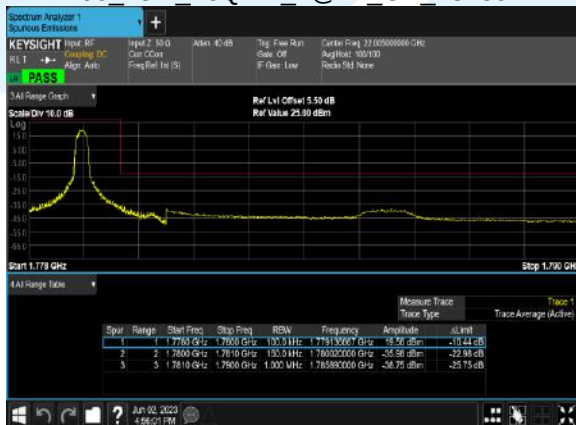
B66 15M QPSK 1@74 CH 132597



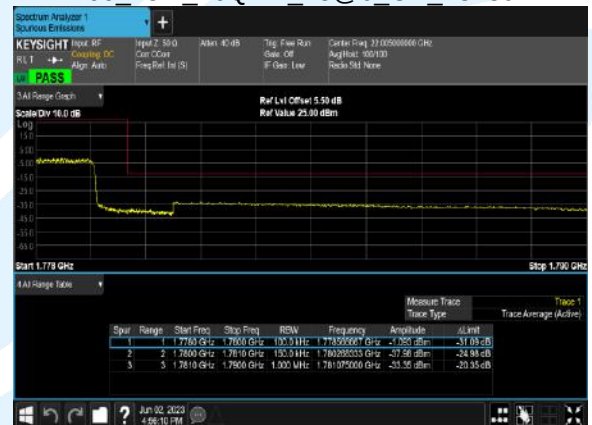
B66 15M QPSK 75@0 CH 132597



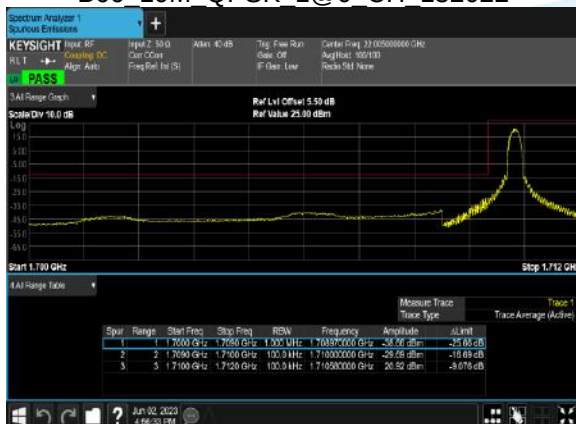
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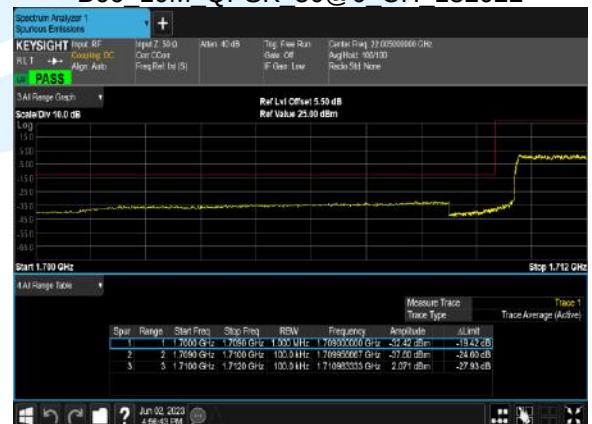
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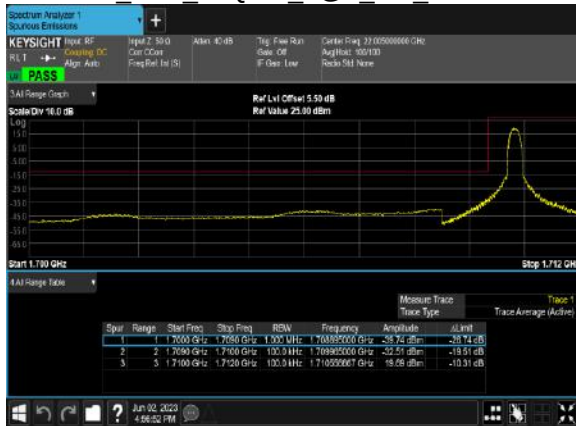
B66 10M QPSK 1@0 CH 132022



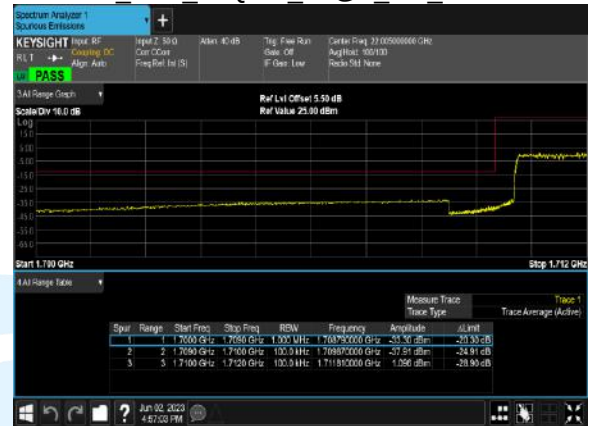
B66 10M QPSK 50@0 CH 132022



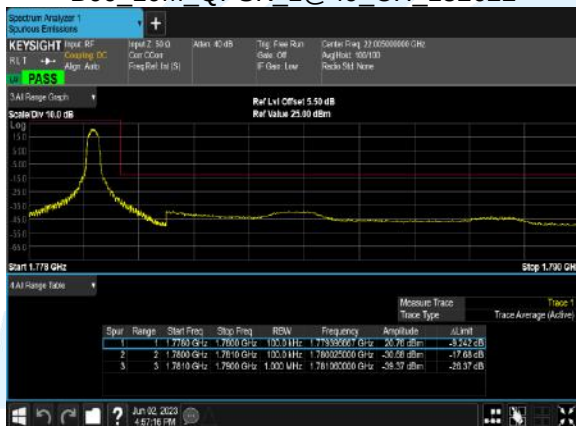
B66 10M 16QAM 1@0 CH 132022



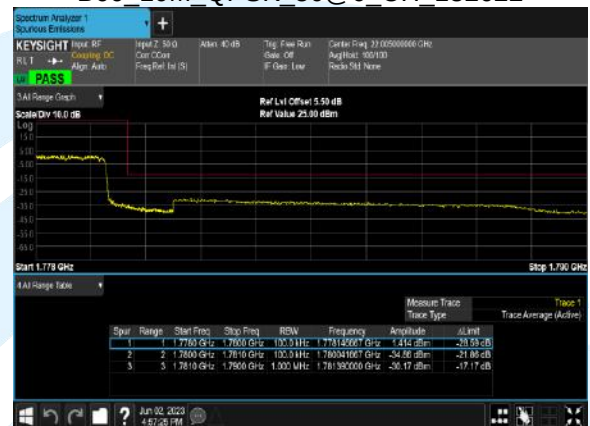
B66 10M 16QAM 50@0 CH 132022



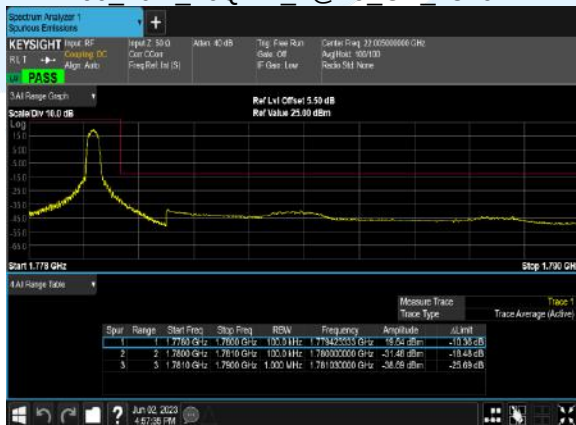
B66 10M QPSK 1@49 CH 132622



B66 10M QPSK 50@0 CH 132622



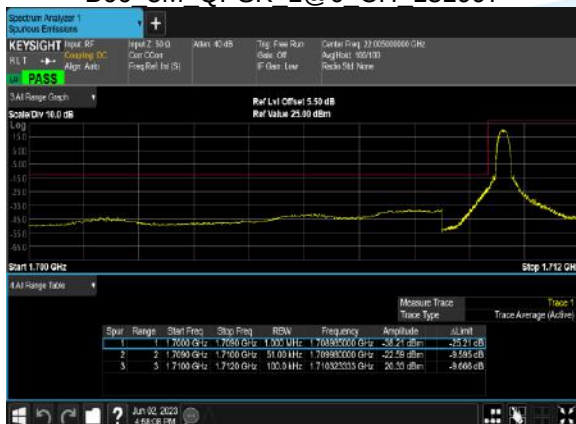
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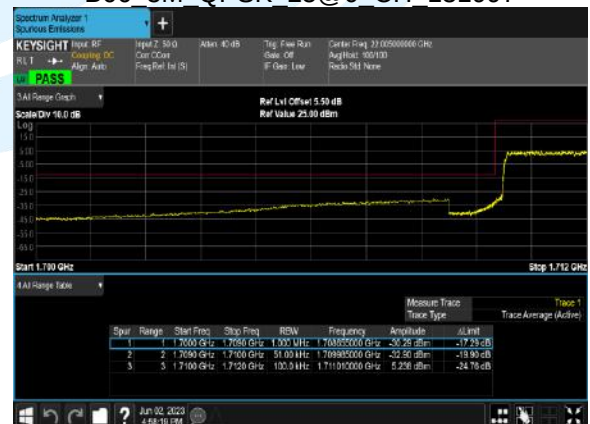
B66 10M 16QAM 50@0 CH 132622



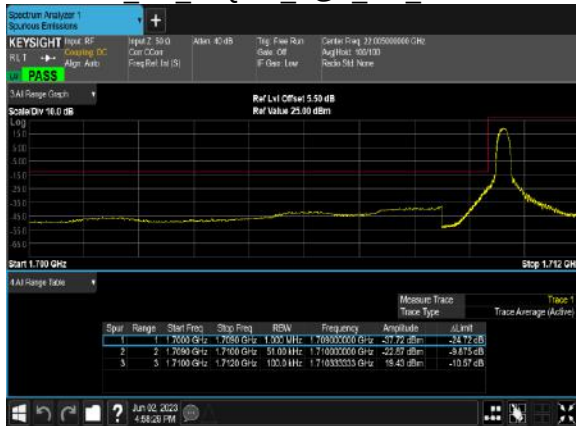
B66 5M QPSK 1@0 CH 131997



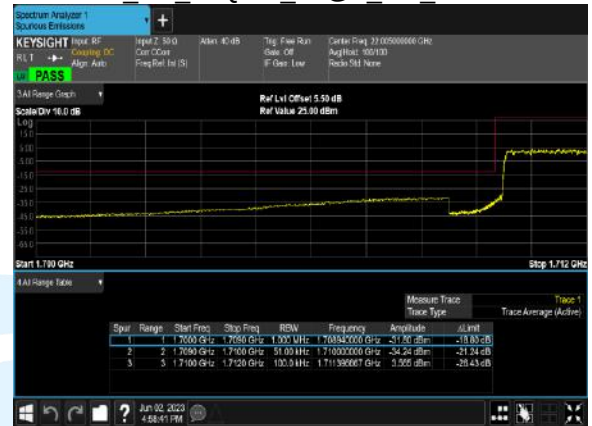
B66 5M QPSK 25@0 CH 131997



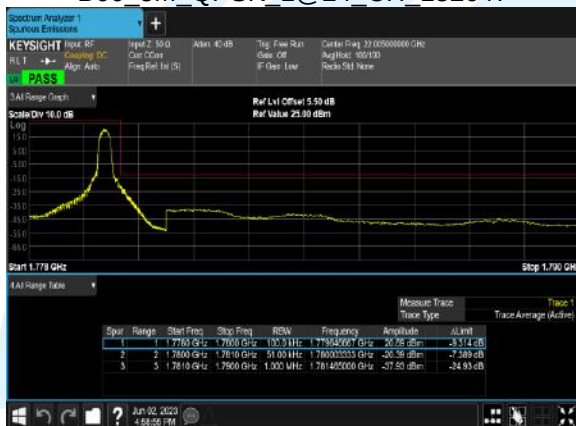
B66 5M 16QAM 1@0 CH 131997



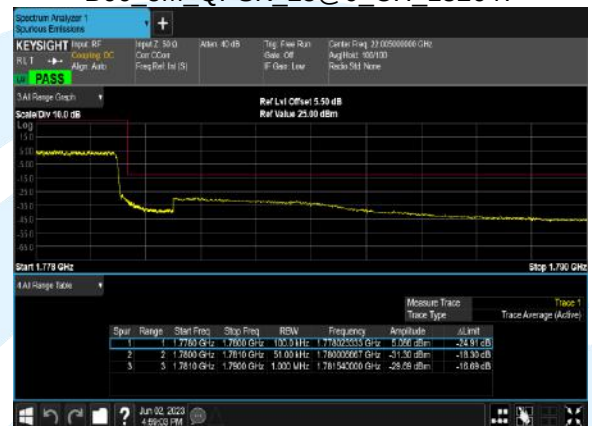
B66 5M 16QAM 25@0 CH 131997



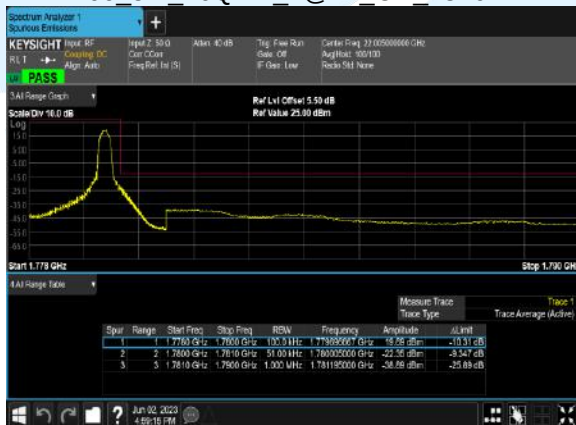
B66 5M QPSK 1@24 CH 132647



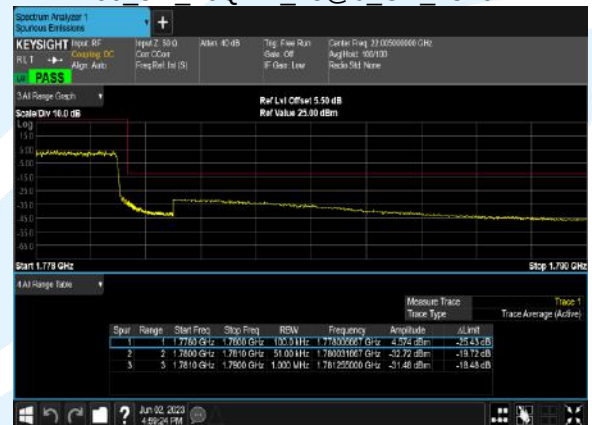
B66 5M QPSK 25@0 CH 132647



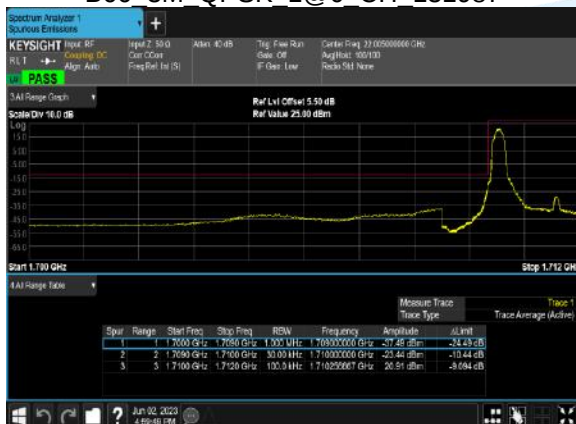
B66 5M 16QAM 1@24 CH 132647



B66 5M 16QAM 25@0 CH 132647



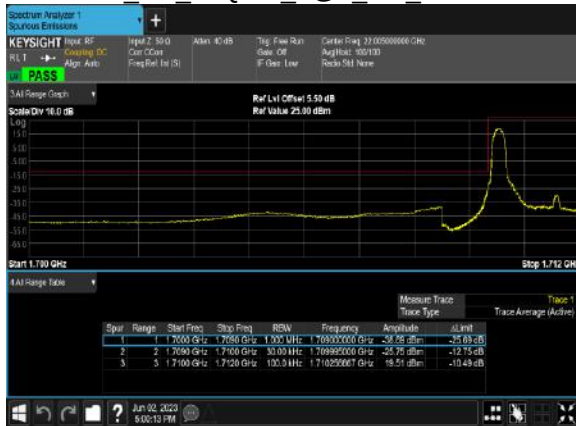
B66 3M QPSK 1@0 CH 131987



B66 3M QPSK 15@0 CH 131987



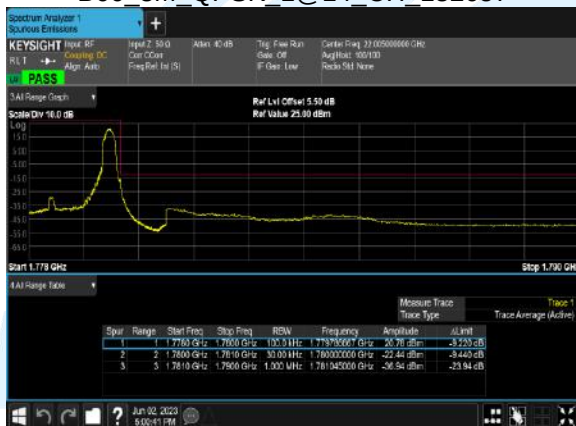
B66 3M 16QAM 1@0 CH 131987



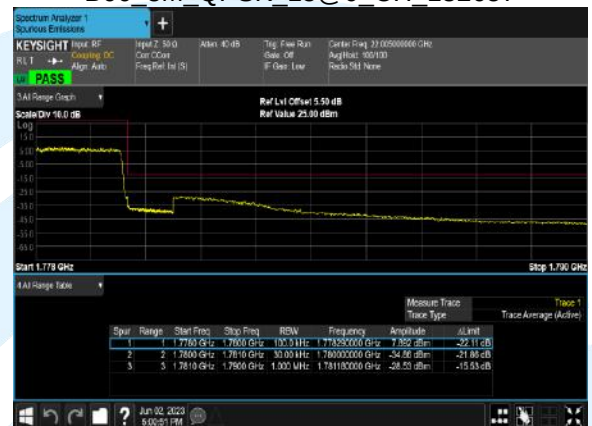
B66 3M 16QAM 15@0 CH 131987



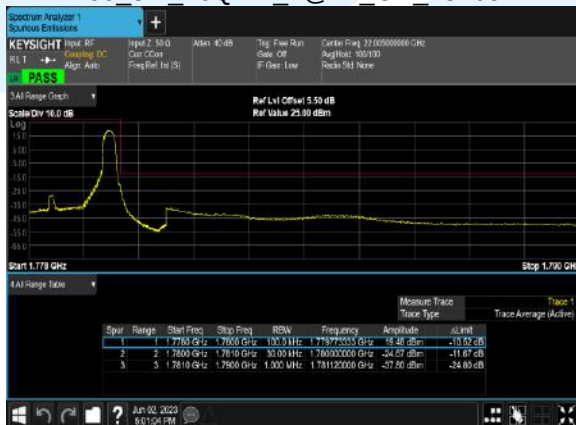
B66 3M QPSK 1@14 CH 132657



B66 3M QPSK 15@0 CH 132657



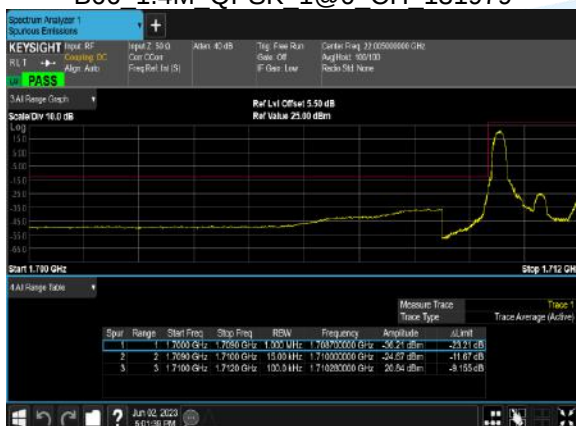
B66 3M 16QAM 1@14 CH 132657



B66 3M 16QAM 15@0 CH 132657



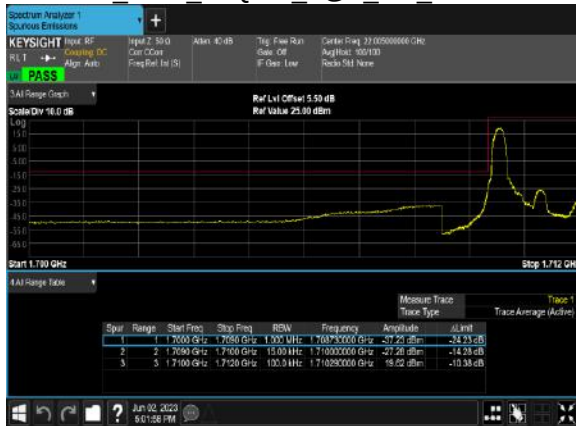
B66 1.4M QPSK 1@0 CH 131979



B66 1.4M QPSK 6@0 CH 131979



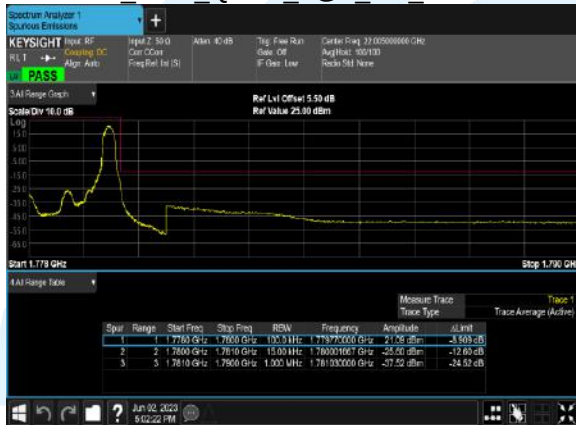
B66 1.4M 16QAM 1@0 CH 131979



B66 1.4M 16QAM 6@0 CH 131979



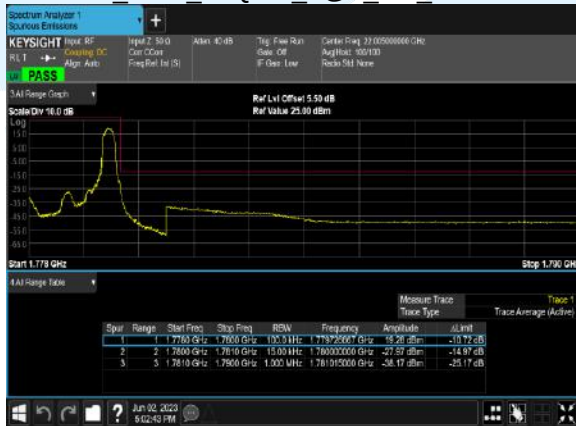
B66 1.4M QPSK 1@5 CH 132665



B66 1.4M QPSK 6@0 CH 132665



B66 1.4M 16QAM 1@5 CH 132665



B66 1.4M 16QAM 6@0 CH 132665



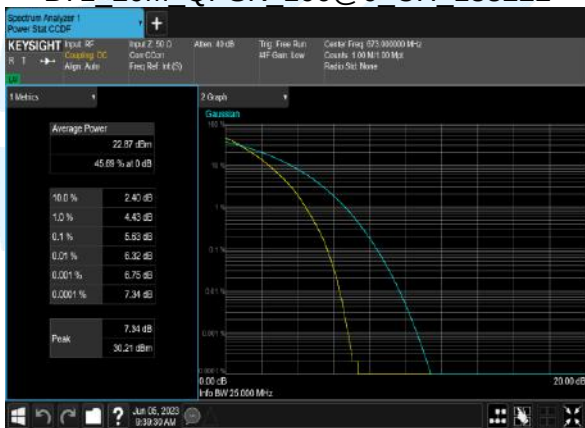
## A.11 LTE BAND 71

## Peak to Average Ratio

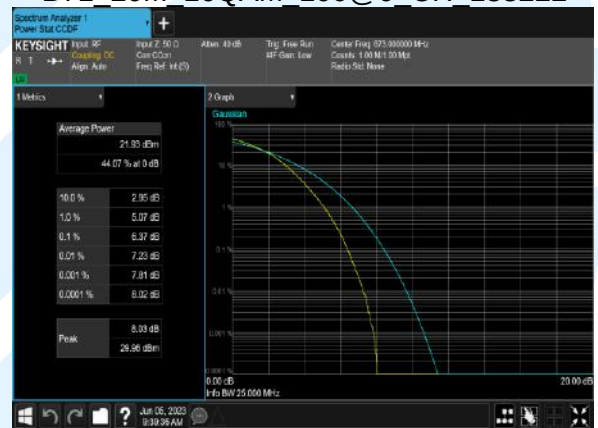
| Band | Bandwidth<br>(MHz) | Channel | Freq<br>(MHz) | Modulation | RB    | Result<br>(dB) | Limit<br>(dB) | Verdict |
|------|--------------------|---------|---------------|------------|-------|----------------|---------------|---------|
| 71   | 20.0               | 133222  | 673.0         | QPSK       | 100@0 | 5.63           | 13            | PASS    |
| 71   | 20.0               | 133222  | 673.0         | 16QAM      | 100@0 | 6.37           | 13            | PASS    |
| 71   | 20.0               | 133322  | 683.0         | QPSK       | 100@0 | 5.51           | 13            | PASS    |
| 71   | 20.0               | 133322  | 683.0         | 16QAM      | 100@0 | 6.34           | 13            | PASS    |
| 71   | 20.0               | 133372  | 688.0         | QPSK       | 100@0 | 5.61           | 13            | PASS    |
| 71   | 20.0               | 133372  | 688.0         | 16QAM      | 100@0 | 6.39           | 13            | PASS    |
| 71   | 15.0               | 133197  | 670.5         | QPSK       | 75@0  | 5.48           | 13            | PASS    |
| 71   | 15.0               | 133197  | 670.5         | 16QAM      | 75@0  | 6.27           | 13            | PASS    |
| 71   | 15.0               | 133297  | 680.5         | QPSK       | 75@0  | 5.35           | 13            | PASS    |
| 71   | 15.0               | 133297  | 680.5         | 16QAM      | 75@0  | 6.17           | 13            | PASS    |
| 71   | 15.0               | 133397  | 690.5         | QPSK       | 75@0  | 5.45           | 13            | PASS    |
| 71   | 15.0               | 133397  | 690.5         | 16QAM      | 75@0  | 6.21           | 13            | PASS    |
| 71   | 10.0               | 133172  | 668.0         | QPSK       | 50@0  | 5.59           | 13            | PASS    |
| 71   | 10.0               | 133172  | 668.0         | 16QAM      | 50@0  | 6.31           | 13            | PASS    |
| 71   | 10.0               | 133297  | 680.5         | QPSK       | 50@0  | 5.63           | 13            | PASS    |
| 71   | 10.0               | 133297  | 680.5         | 16QAM      | 50@0  | 6.34           | 13            | PASS    |
| 71   | 10.0               | 133422  | 693.0         | QPSK       | 50@0  | 5.60           | 13            | PASS    |
| 71   | 10.0               | 133422  | 693.0         | 16QAM      | 50@0  | 6.34           | 13            | PASS    |
| 71   | 5.0                | 133147  | 665.5         | QPSK       | 25@0  | 5.49           | 13            | PASS    |
| 71   | 5.0                | 133147  | 665.5         | 16QAM      | 25@0  | 6.17           | 13            | PASS    |
| 71   | 5.0                | 133297  | 680.5         | QPSK       | 25@0  | 5.63           | 13            | PASS    |
| 71   | 5.0                | 133297  | 680.5         | 16QAM      | 25@0  | 6.30           | 13            | PASS    |
| 71   | 5.0                | 133447  | 695.5         | QPSK       | 25@0  | 5.61           | 13            | PASS    |
| 71   | 5.0                | 133447  | 695.5         | 16QAM      | 25@0  | 6.33           | 13            | PASS    |

## Test Graphs

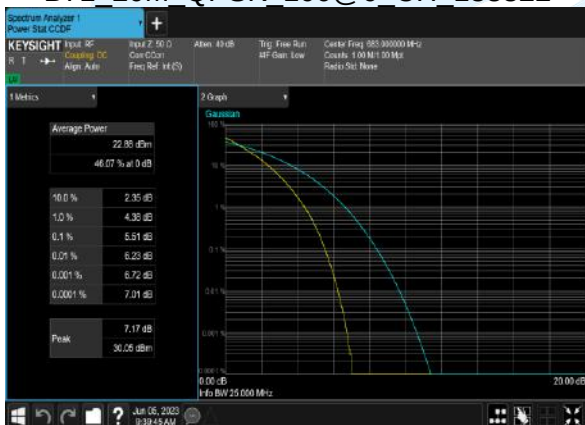
B71\_20M\_QPSK\_100@0\_CH\_133222



B71\_20M\_16QAM\_100@0\_CH\_133222



B71\_20M\_QPSK\_100@0\_CH\_133322



B71\_20M\_16QAM\_100@0\_CH\_133322



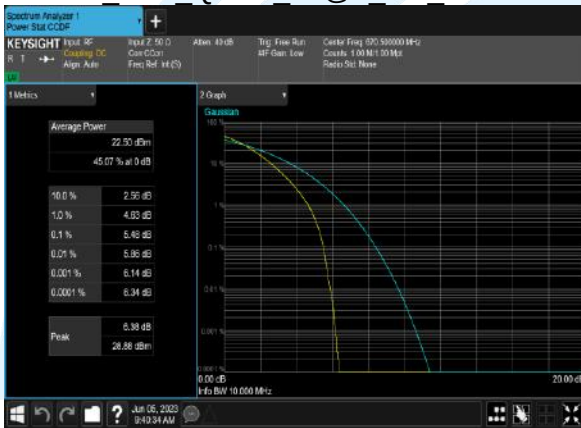
B71\_20M QPSK 100@0 CH 133372



B71\_20M 16QAM 100@0 CH 133372



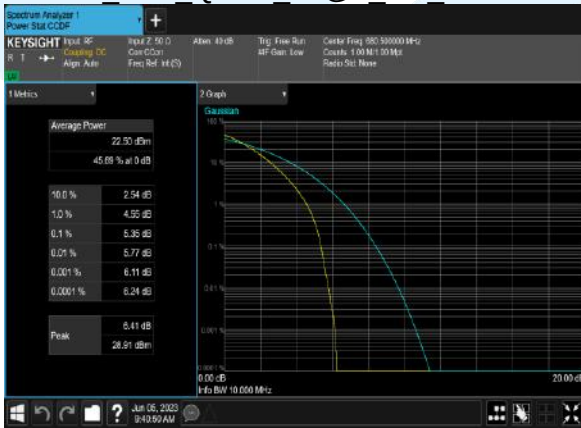
B71\_15M QPSK 75@0 CH 133197



B71\_15M 16QAM 75@0 CH 133197



B71\_15M QPSK 75@0 CH 133297



B71\_15M 16QAM 75@0 CH 133297



B71\_15M QPSK 75@0 CH 133397



B71\_15M 16QAM 75@0 CH 133397



B71 10M QPSK 50@0 CH 133172



B71 10M 16QAM 50@0 CH 133172



B71 10M QPSK 50@0 CH 133297



B71 10M 16QAM 50@0 CH 133297



B71 10M QPSK 50@0 CH 133422



B71 10M 16QAM 50@0 CH 133422



B71 5M QPSK 25@0 CH 133147



B71 5M 16QAM 25@0 CH 133147



B71\_5M QPSK 25@0 CH 133297



B71\_5M 16QAM 25@0 CH 133297



B71\_5M QPSK 25@0 CH 133447



B71\_5M 16QAM 25@0 CH 133447



## Occupied Bandwidth

| Band | Bandwidth (MHz) | Channel | Freq (MHz) | Modulation | RB    | OBW (MHz) | 26dB BW (MHz) |
|------|-----------------|---------|------------|------------|-------|-----------|---------------|
| 71   | 20.0            | 133222  | 673.0      | QPSK       | 100@0 | 17.845    | 18.92         |
| 71   | 20.0            | 133222  | 673.0      | 16QAM      | 100@0 | 17.845    | 19.08         |
| 71   | 20.0            | 133322  | 683.0      | QPSK       | 100@0 | 17.826    | 19.12         |
| 71   | 20.0            | 133322  | 683.0      | 16QAM      | 100@0 | 17.842    | 18.75         |
| 71   | 20.0            | 133372  | 688.0      | QPSK       | 100@0 | 17.847    | 18.91         |
| 71   | 20.0            | 133372  | 688.0      | 16QAM      | 100@0 | 17.880    | 18.85         |
| 71   | 15.0            | 133197  | 670.5      | QPSK       | 75@0  | 13.417    | 14.57         |
| 71   | 15.0            | 133197  | 670.5      | 16QAM      | 75@0  | 13.422    | 14.37         |
| 71   | 15.0            | 133297  | 680.5      | QPSK       | 75@0  | 13.372    | 14.39         |
| 71   | 15.0            | 133297  | 680.5      | 16QAM      | 75@0  | 13.420    | 14.41         |
| 71   | 15.0            | 133397  | 690.5      | QPSK       | 75@0  | 13.404    | 14.45         |
| 71   | 15.0            | 133397  | 690.5      | 16QAM      | 75@0  | 13.446    | 14.35         |
| 71   | 10.0            | 133172  | 668.0      | QPSK       | 50@0  | 8.9453    | 9.763         |
| 71   | 10.0            | 133172  | 668.0      | 16QAM      | 50@0  | 8.9254    | 9.682         |
| 71   | 10.0            | 133297  | 680.5      | QPSK       | 50@0  | 8.9378    | 9.675         |
| 71   | 10.0            | 133297  | 680.5      | 16QAM      | 50@0  | 8.9409    | 9.638         |
| 71   | 10.0            | 133422  | 693.0      | QPSK       | 50@0  | 8.9504    | 9.720         |
| 71   | 10.0            | 133422  | 693.0      | 16QAM      | 50@0  | 8.9524    | 9.730         |
| 71   | 5.0             | 133147  | 665.5      | QPSK       | 25@0  | 4.4565    | 4.902         |
| 71   | 5.0             | 133147  | 665.5      | 16QAM      | 25@0  | 4.4610    | 4.961         |
| 71   | 5.0             | 133297  | 680.5      | QPSK       | 25@0  | 4.4611    | 4.989         |
| 71   | 5.0             | 133297  | 680.5      | 16QAM      | 25@0  | 4.4753    | 4.866         |
| 71   | 5.0             | 133447  | 695.5      | QPSK       | 25@0  | 4.4576    | 4.925         |
| 71   | 5.0             | 133447  | 695.5      | 16QAM      | 25@0  | 4.4713    | 5.014         |

## Test Graphs

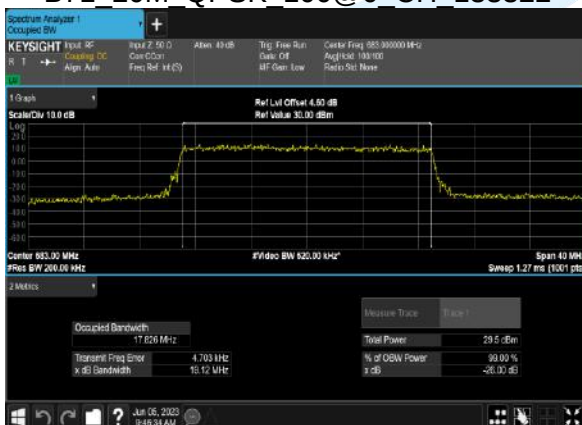
B71 20M QPSK 100@0 CH 133222



B71 20M 16QAM 100@0 CH 133222



B71 20M QPSK 100@0 CH 133322



B71 20M 16QAM 100@0 CH 133322



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UTTR-RF-FCC4G-V1.1

B71\_20M QPSK 100@0 CH 133372



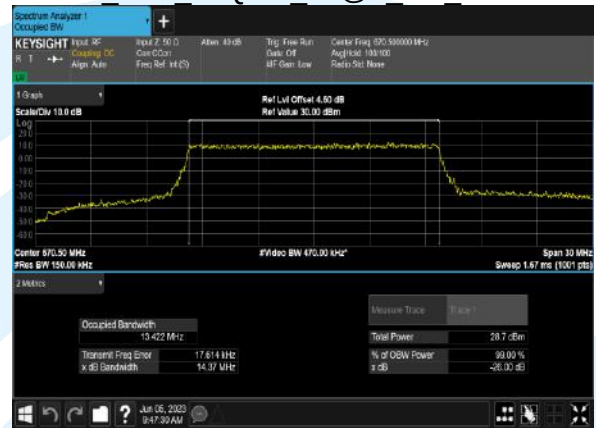
B71\_20M 16QAM 100@0 CH 133372



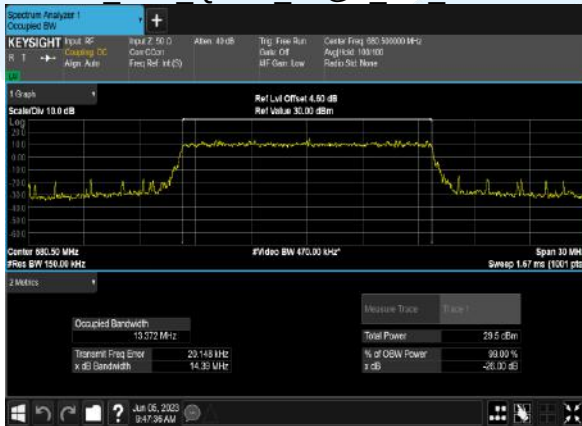
B71\_15M QPSK 75@0 CH 133197



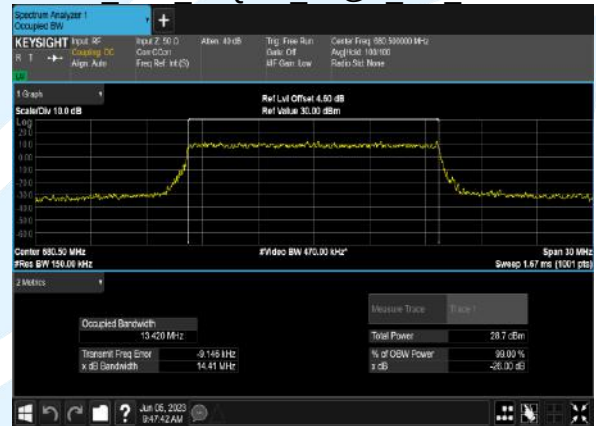
B71\_15M 16QAM 75@0 CH 133197



B71\_15M QPSK 75@0 CH 133297



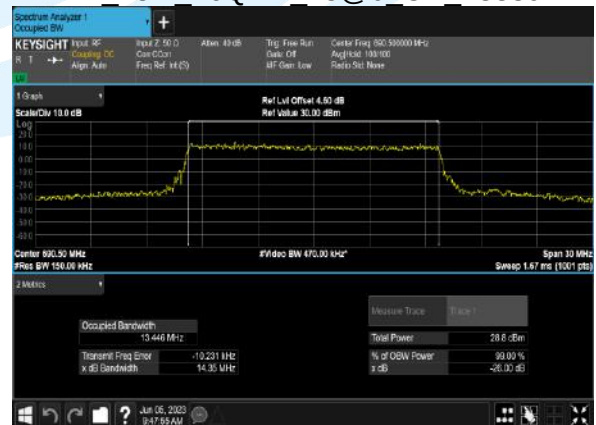
B71\_15M 16QAM 75@0 CH 133297



B71\_15M QPSK 75@0 CH 133397



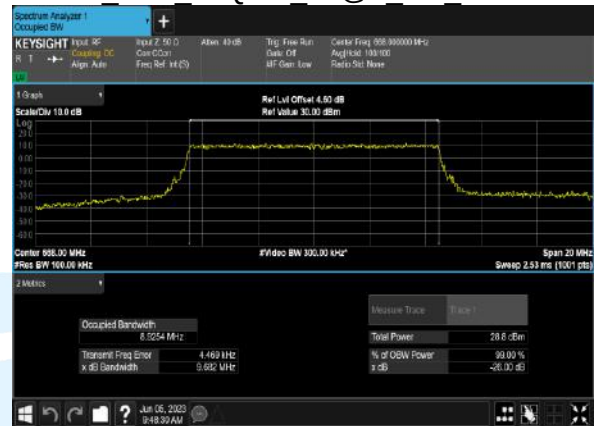
B71\_15M 16QAM 75@0 CH 133397



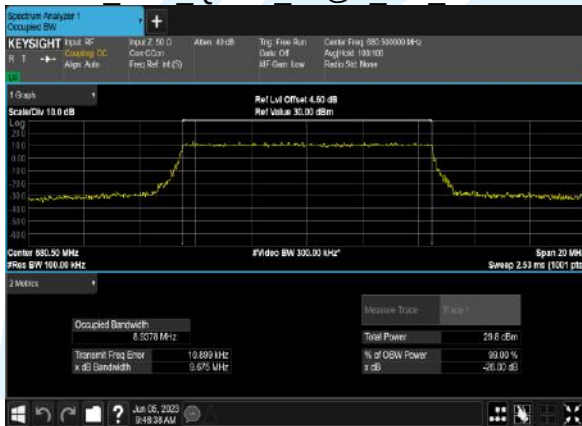
B71 10M QPSK 50@0 CH 133172



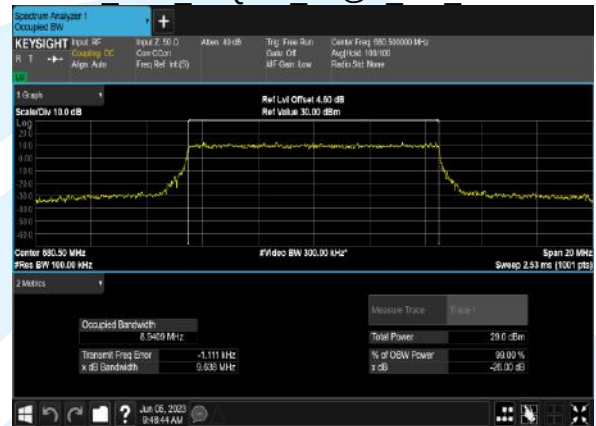
B71 10M 16QAM 50@0 CH 133172



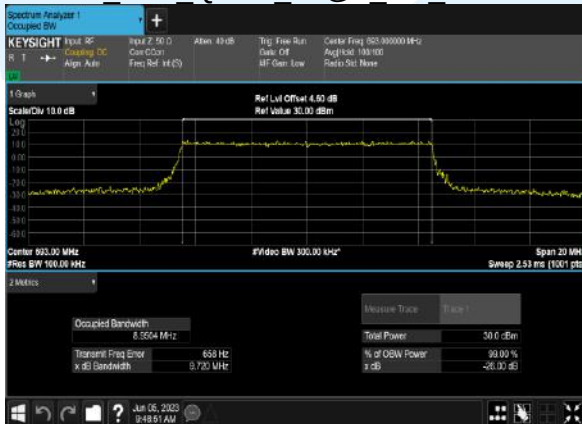
B71 10M QPSK 50@0 CH 133297



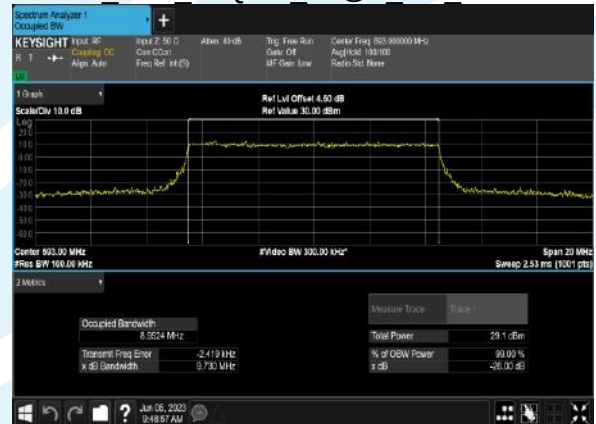
B71 10M 16QAM 50@0 CH 133297



B71 10M QPSK 50@0 CH 133422



B71 10M 16QAM 50@0 CH 133422



B71 5M QPSK 25@0 CH 133147



B71 5M 16QAM 25@0 CH 133147



B71\_5M QPSK 25@0 CH 133297



B71\_5M 16QAM 25@0 CH 133297



B71\_5M QPSK 25@0 CH 133447



B71\_5M 16QAM 25@0 CH 133447



## Conducted Spurious Emissions

| Band | Bandwidth (MHz) | Channel | Freq (MHz) | Modulation | RB  | Result (dBm) | Limit (dBm) | Verdict |
|------|-----------------|---------|------------|------------|-----|--------------|-------------|---------|
| 71   | 20.0            | 133222  | 673.0      | QPSK       | 1@0 | -31.64       | -13         | PASS    |
| 71   | 20.0            | 133222  | 673.0      | 16QAM      | 1@0 | -29.7        | -13         | PASS    |
| 71   | 20.0            | 133322  | 683.0      | QPSK       | 1@0 | -31.33       | -13         | PASS    |
| 71   | 20.0            | 133322  | 683.0      | 16QAM      | 1@0 | -31.01       | -13         | PASS    |
| 71   | 20.0            | 133372  | 688.0      | QPSK       | 1@0 | -29.04       | -13         | PASS    |
| 71   | 20.0            | 133372  | 688.0      | 16QAM      | 1@0 | -27.9        | -13         | PASS    |
| 71   | 15.0            | 133197  | 670.5      | QPSK       | 1@0 | -29.52       | -13         | PASS    |
| 71   | 15.0            | 133197  | 670.5      | 16QAM      | 1@0 | -31.32       | -13         | PASS    |
| 71   | 15.0            | 133297  | 680.5      | QPSK       | 1@0 | -30.82       | -13         | PASS    |
| 71   | 15.0            | 133297  | 680.5      | 16QAM      | 1@0 | -30.85       | -13         | PASS    |
| 71   | 15.0            | 133397  | 690.5      | QPSK       | 1@0 | -31.68       | -13         | PASS    |
| 71   | 15.0            | 133397  | 690.5      | 16QAM      | 1@0 | -30.75       | -13         | PASS    |
| 71   | 10.0            | 133172  | 668.0      | QPSK       | 1@0 | -31.19       | -13         | PASS    |
| 71   | 10.0            | 133172  | 668.0      | 16QAM      | 1@0 | -31.19       | -13         | PASS    |
| 71   | 10.0            | 133297  | 680.5      | QPSK       | 1@0 | -31.16       | -13         | PASS    |
| 71   | 10.0            | 133297  | 680.5      | 16QAM      | 1@0 | -30.53       | -13         | PASS    |
| 71   | 10.0            | 133422  | 693.0      | QPSK       | 1@0 | -31.15       | -13         | PASS    |
| 71   | 10.0            | 133422  | 693.0      | 16QAM      | 1@0 | -31.17       | -13         | PASS    |
| 71   | 5.0             | 133147  | 665.5      | QPSK       | 1@0 | -30.63       | -13         | PASS    |
| 71   | 5.0             | 133147  | 665.5      | 16QAM      | 1@0 | -31.06       | -13         | PASS    |
| 71   | 5.0             | 133297  | 680.5      | QPSK       | 1@0 | -30.81       | -13         | PASS    |
| 71   | 5.0             | 133297  | 680.5      | 16QAM      | 1@0 | -30.84       | -13         | PASS    |
| 71   | 5.0             | 133447  | 695.5      | QPSK       | 1@0 | -30.98       | -13         | PASS    |
| 71   | 5.0             | 133447  | 695.5      | 16QAM      | 1@0 | -31.38       | -13         | PASS    |

## Test Graphs

B71 20M QPSK 1@0 CH 133222



B71 20M 16QAM 1@0 CH 133222



B71 20M QPSK 1@0 CH 133322



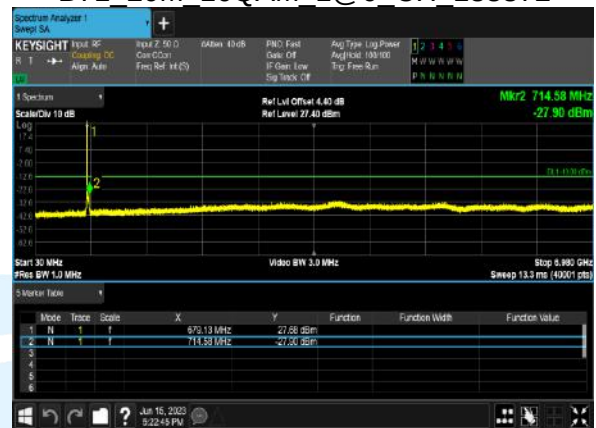
B71 20M 16QAM 1@0 CH 133322



B71\_20M QPSK 1@0 CH 133372



B71\_20M 16QAM 1@0 CH 133372



B71\_15M QPSK 1@0 CH 133197



B71\_15M 16QAM 1@0 CH 133197



B71\_15M QPSK 1@0 CH 133297



B71\_15M 16QAM 1@0 CH 133297



B71\_15M QPSK 1@0 CH 133397



B71\_15M 16QAM 1@0 CH 133397



B71\_10M QPSK 1@0 CH 133172



B71\_10M 16QAM 1@0 CH 133172



B71\_10M QPSK 1@0 CH 133297



B71\_10M 16QAM 1@0 CH 133297



B71\_10M QPSK 1@0 CH 133422



B71\_10M 16QAM 1@0 CH 133422



B71\_5M QPSK 1@0 CH 133147



B71\_5M 16QAM 1@0 CH 133147



B71 5M QPSK 1@0 CH 133297



B71 5M 16QAM 1@0 CH 133297



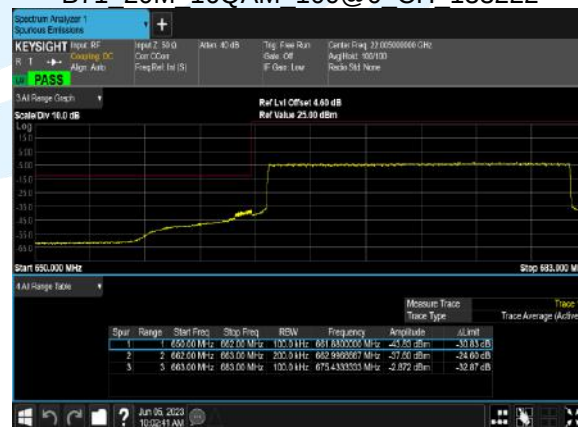
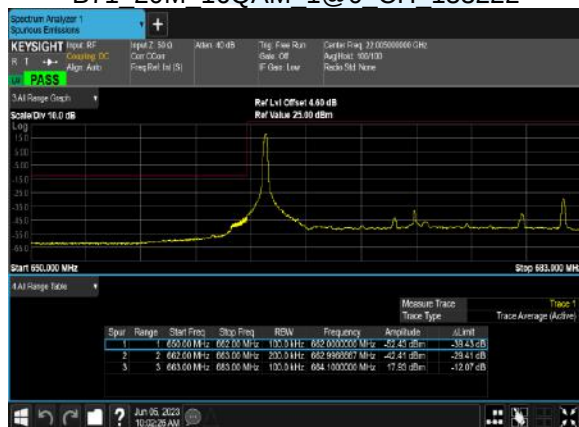
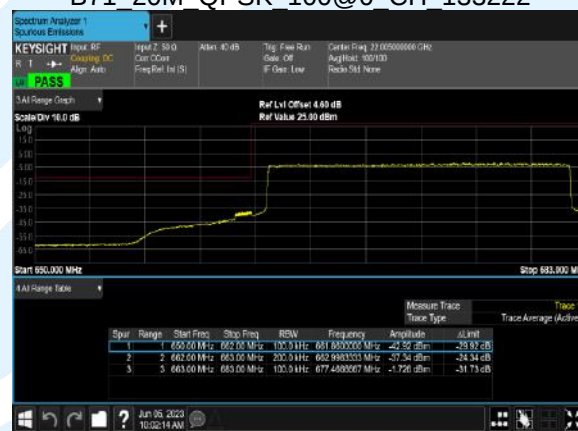
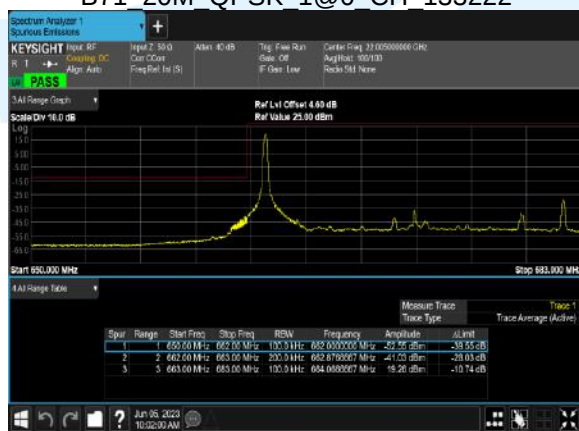
B71 5M QPSK 1@0 CH 133447



B71 5M 16QAM 1@0 CH 133447



| Band | Bandwidth (MHz) | Channel | Freq (MHz) | Modulation | RB    | Result    | Verdict |
|------|-----------------|---------|------------|------------|-------|-----------|---------|
| 71   | 20.0            | 133222  | 673.0      | QPSK       | 1@0   | see graph | PASS    |
| 71   | 20.0            | 133222  | 673.0      | QPSK       | 100@0 | see graph | PASS    |
| 71   | 20.0            | 133222  | 673.0      | 16QAM      | 1@0   | see graph | PASS    |
| 71   | 20.0            | 133222  | 673.0      | 16QAM      | 100@0 | see graph | PASS    |
| 71   | 20.0            | 133372  | 688.0      | QPSK       | 1@99  | see graph | PASS    |
| 71   | 20.0            | 133372  | 688.0      | QPSK       | 100@0 | see graph | PASS    |
| 71   | 20.0            | 133372  | 688.0      | 16QAM      | 1@99  | see graph | PASS    |
| 71   | 20.0            | 133372  | 688.0      | 16QAM      | 100@0 | see graph | PASS    |
| 71   | 15.0            | 133197  | 670.5      | QPSK       | 1@0   | see graph | PASS    |
| 71   | 15.0            | 133197  | 670.5      | QPSK       | 75@0  | see graph | PASS    |
| 71   | 15.0            | 133197  | 670.5      | 16QAM      | 1@0   | see graph | PASS    |
| 71   | 15.0            | 133197  | 670.5      | 16QAM      | 75@0  | see graph | PASS    |
| 71   | 15.0            | 133397  | 690.5      | QPSK       | 1@74  | see graph | PASS    |
| 71   | 15.0            | 133397  | 690.5      | QPSK       | 75@0  | see graph | PASS    |
| 71   | 15.0            | 133397  | 690.5      | 16QAM      | 1@74  | see graph | PASS    |
| 71   | 15.0            | 133397  | 690.5      | 16QAM      | 75@0  | see graph | PASS    |
| 71   | 10.0            | 133172  | 668.0      | QPSK       | 1@0   | see graph | PASS    |
| 71   | 10.0            | 133172  | 668.0      | QPSK       | 50@0  | see graph | PASS    |
| 71   | 10.0            | 133172  | 668.0      | 16QAM      | 1@0   | see graph | PASS    |
| 71   | 10.0            | 133172  | 668.0      | 16QAM      | 50@0  | see graph | PASS    |
| 71   | 10.0            | 133422  | 693.0      | QPSK       | 1@49  | see graph | PASS    |
| 71   | 10.0            | 133422  | 693.0      | QPSK       | 50@0  | see graph | PASS    |
| 71   | 10.0            | 133422  | 693.0      | 16QAM      | 1@49  | see graph | PASS    |
| 71   | 10.0            | 133422  | 693.0      | 16QAM      | 50@0  | see graph | PASS    |
| 71   | 5.0             | 133147  | 665.5      | QPSK       | 1@0   | see graph | PASS    |
| 71   | 5.0             | 133147  | 665.5      | QPSK       | 25@0  | see graph | PASS    |
| 71   | 5.0             | 133147  | 665.5      | 16QAM      | 1@0   | see graph | PASS    |
| 71   | 5.0             | 133147  | 665.5      | 16QAM      | 25@0  | see graph | PASS    |
| 71   | 5.0             | 133447  | 695.5      | QPSK       | 1@24  | see graph | PASS    |
| 71   | 5.0             | 133447  | 695.5      | QPSK       | 25@0  | see graph | PASS    |
| 71   | 5.0             | 133447  | 695.5      | 16QAM      | 1@24  | see graph | PASS    |
| 71   | 5.0             | 133447  | 695.5      | 16QAM      | 25@0  | see graph | PASS    |



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