

## **APPENDIX I - FREQUENCY STABILITY**

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| Test Mode | WCDMA Band IV _CH1413 |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 3.26                 | 0.001881565           | ± 2.5      |
| -20                  | 6.30                 | 0.003633845           |            |
| -10                  | 9.26                 | 0.005344569           |            |
| 0                    | 3.26                 | 0.001881565           |            |
| 10                   | 8.52                 | 0.004917465           |            |
| 20                   | 6.26                 | 0.003613067           |            |
| 30                   | 3.54                 | 0.002043172           |            |
| 40                   | 4.32                 | 0.002493363           |            |
| 50                   | 6.26                 | 0.003613067           |            |
| Max. Deviation (ppm) | 9.26                 | 0.005344569           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 4.22                 | 0.002435646           | ± 2.5      |
| 3.87                 | 3.66                 | 0.002112432           |            |
| 3.60                 | 3.25                 | 0.001875794           |            |
| Max. Deviation (ppm) | 4.22                 | 0.002435646           |            |

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| Test Mode | LTE Band 4_CH20175_1.4M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -4.94                | -0.002851371          | ± 2.5      |
| -20                  | 6.14                 | 0.003544012           |            |
| -10                  | 3.19                 | 0.00184127            |            |
| 0                    | -2.13                | -0.001229437          |            |
| 10                   | 3.12                 | 0.001800866           |            |
| 20                   | -6.31                | -0.003642136          |            |
| 30                   | -1.27                | -0.000733045          |            |
| 40                   | 3.11                 | 0.001795094           |            |
| 50                   | -7.04                | -0.004063492          |            |
| Max. Deviation (ppm) | -7.04                | -0.004063492          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 7.66                 | 0.004421356           | ± 2.5      |
| 3.87                 | -2.41                | -0.001391053          |            |
| 3.60                 | 5.59                 | 0.003226551           |            |
| Max. Deviation (ppm) | 7.66                 | 0.004421356           |            |

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| Test Mode | LTE Band 4_CH20175_3M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -5.33                | -0.003076479          | ± 2.5      |
| -20                  | 9.15                 | 0.005281385           |            |
| -10                  | 3.75                 | 0.002164502           |            |
| 0                    | 8.15                 | 0.004704185           |            |
| 10                   | 2.76                 | 0.001593074           |            |
| 20                   | 6.55                 | 0.003780664           |            |
| 30                   | -8.38                | -0.004836941          |            |
| 40                   | -1.08                | -0.000623377          |            |
| 50                   | 8.17                 | 0.004715729           |            |
| Max. Deviation (ppm) | 9.15                 | 0.005281385           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 3.98                 | 0.002297258           | ± 2.5      |
| 3.87                 | -6.29                | -0.003630592          |            |
| 3.60                 | -3.25                | -0.001875902          |            |
| Max. Deviation (ppm) | -6.29                | -0.003630592          |            |

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| Test Mode | LTE Band 4_CH20175_5M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 7.48                 | 0.00431746            | ± 2.5      |
| -20                  | 6.49                 | 0.003746032           |            |
| -10                  | 5.99                 | 0.003457431           |            |
| 0                    | 4.29                 | 0.00247619            |            |
| 10                   | 4.62                 | 0.002666667           |            |
| 20                   | -5.07                | -0.002926407          |            |
| 30                   | 8.57                 | 0.004946609           |            |
| 40                   | -3.72                | -0.002147186          |            |
| 50                   | 2.04                 | 0.001177489           |            |
| Max. Deviation (ppm) | 8.57                 | 0.004946609           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 5.65                 | 0.003261183           | ± 2.5      |
| 3.87                 | 5.35                 | 0.003088023           |            |
| 3.60                 | 6.76                 | 0.003901876           |            |
| Max. Deviation (ppm) | 6.76                 | 0.003901876           |            |

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| Test Mode | LTE Band 4_CH20175_10M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -4.84                | -0.002793651          | ± 2.5      |
| -20                  | 3.37                 | 0.001945166           |            |
| -10                  | -3.68                | -0.002124098          |            |
| 0                    | -8.09                | -0.004669553          |            |
| 10                   | -1.11                | -0.000640693          |            |
| 20                   | -5.70                | -0.003290043          |            |
| 30                   | -5.23                | -0.003018759          |            |
| 40                   | 3.97                 | 0.002291486           |            |
| 50                   | 4.52                 | 0.002608947           |            |
| Max. Deviation (ppm) | -8.09                | -0.004669553          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -5.56                | -0.003209235          | ± 2.5      |
| 3.87                 | -1.06                | -0.000611833          |            |
| 3.60                 | -2.29                | -0.001321789          |            |
| Max. Deviation (ppm) | -5.56                | -0.003209235          |            |

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| Test Mode | LTE Band 4_CH20175_15M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 7.29                 | 0.004207792           | ± 2.5      |
| -20                  | -8.48                | -0.004894661          |            |
| -10                  | 7.09                 | 0.004092352           |            |
| 0                    | 5.04                 | 0.002909091           |            |
| 10                   | -8.28                | -0.004779221          |            |
| 20                   | -4.67                | -0.002695527          |            |
| 30                   | 4.42                 | 0.002551227           |            |
| 40                   | -6.54                | -0.003774892          |            |
| 50                   | 7.52                 | 0.004340548           |            |
| Max. Deviation (ppm) | -8.48                | -0.004894661          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -7.23                | -0.00417316           | ± 2.5      |
| 3.87                 | 4.86                 | 0.002805195           |            |
| 3.60                 | 7.51                 | 0.004334776           |            |
| Max. Deviation (ppm) | 7.51                 | 0.004334776           |            |

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| Test Mode | LTE Band 4_CH20175_20M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 9.20                 | 0.005310245           | ± 2.5      |
| -20                  | -1.36                | -0.000784993          |            |
| -10                  | -3.67                | -0.002118326          |            |
| 0                    | 8.30                 | 0.004790765           |            |
| 10                   | 8.25                 | 0.004761905           |            |
| 20                   | -4.53                | -0.002614719          |            |
| 30                   | -3.51                | -0.002025974          |            |
| 40                   | -5.13                | -0.002961039          |            |
| 50                   | -1.93                | -0.001113997          |            |
| Max. Deviation (ppm) | 9.2                  | 0.005310245           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -1.28                | -0.000738817          | ± 2.5      |
| 3.87                 | -4.55                | -0.002626263          |            |
| 3.60                 | -6.85                | -0.003953824          |            |
| Max. Deviation (ppm) | -6.85                | -0.003953824          |            |

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| Test Mode | LTE Band 7_CH2100_5M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -5.53                | -0.00218146           | ± 2.5      |
| -20                  | 1.87                 | 0.000737673           |            |
| -10                  | -7.91                | -0.003120316          |            |
| 0                    | 8.03                 | 0.003167653           |            |
| 10                   | 6.57                 | 0.002591716           |            |
| 20                   | -8.43                | -0.003325444          |            |
| 30                   | 1.83                 | 0.000721893           |            |
| 40                   | 5.58                 | 0.002201183           |            |
| 50                   | -3.78                | -0.001491124          |            |
| Max. Deviation (ppm) | -8.43                | -0.003325444          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -1.34                | -0.0005286            | ± 2.5      |
| 3.87                 | 5.85                 | 0.002307692           |            |
| 3.60                 | -2.18                | -0.000859961          |            |
| Max. Deviation (ppm) | 5.85                 | 0.002307692           |            |

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| Test Mode | LTE Band 7_CH2100_10M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 6.14                 | 0.002422091           | ± 2.5      |
| -20                  | -2.92                | -0.001151874          |            |
| -10                  | 7.09                 | 0.002796844           |            |
| 0                    | 4.16                 | 0.001641026           |            |
| 10                   | -7.13                | -0.002812623          |            |
| 20                   | -1.33                | -0.000524655          |            |
| 30                   | 3.35                 | 0.001321499           |            |
| 40                   | 2.98                 | 0.001175542           |            |
| 50                   | 3.19                 | 0.001258383           |            |
| Max. Deviation (ppm) | -7.13                | -0.002812623          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -6.61                | -0.002607495          | ± 2.5      |
| 3.87                 | -5.98                | -0.002358974          |            |
| 3.60                 | -4.65                | -0.00183432           |            |
| Max. Deviation (ppm) | -6.61                | -0.002607495          |            |

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| Test Mode | LTE Band 7_CH2100_15M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -8.41                | -0.003317554          | ± 2.5      |
| -20                  | 2.08                 | 0.000820513           |            |
| -10                  | 3.57                 | 0.001408284           |            |
| 0                    | -6.51                | -0.002568047          |            |
| 10                   | 2.66                 | 0.00104931            |            |
| 20                   | -4.44                | -0.001751479          |            |
| 30                   | 2.53                 | 0.000998028           |            |
| 40                   | -6.66                | -0.002627219          |            |
| 50                   | 1.46                 | 0.000575937           |            |
| Max. Deviation (ppm) | -8.41                | -0.003317554          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 2.71                 | 0.001069034           | ± 2.5      |
| 3.87                 | 6.22                 | 0.002453649           |            |
| 3.60                 | -2.79                | -0.001100592          |            |
| Max. Deviation (ppm) | 6.22                 | 0.002453649           |            |

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| Test Mode | LTE Band 7_CH21100_20M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 3.82                 | 0.001506903           | ± 2.5      |
| -20                  | -6.16                | -0.00242998           |            |
| -10                  | -6.24                | -0.002461538          |            |
| 0                    | 5.74                 | 0.0022643             |            |
| 10                   | -2.75                | -0.001084813          |            |
| 20                   | -4.63                | -0.00182643           |            |
| 30                   | -4.13                | -0.001629191          |            |
| 40                   | 7.09                 | 0.002796844           |            |
| 50                   | -2.55                | -0.001005917          |            |
| Max. Deviation (ppm) | 7.09                 | 0.002796844           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -5.24                | -0.002067061          | ± 2.5      |
| 3.87                 | 4.42                 | 0.00174359            |            |
| 3.60                 | 1.61                 | 0.000635108           |            |
| Max. Deviation (ppm) | -5.24                | -0.002067061          |            |

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| Test Mode | LTE Band 12_CH23095_1.4M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -1.84                | 0.002600707           | ± 2.5      |
| -20                  | 4.87                 | 0.006883392           |            |
| -10                  | 8.71                 | 0.012310954           |            |
| 0                    | 8.14                 | 0.0115053             |            |
| 10                   | 1.16                 | 0.001639576           |            |
| 20                   | 3.07                 | 0.004339223           |            |
| 30                   | 4.73                 | 0.006685512           |            |
| 40                   | -1.23                | 0.001738516           |            |
| 50                   | -2.95                | 0.004169611           |            |
| Max. Deviation (ppm) | 8.71                 | 0.012310954           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -3.59                | 0.005074205           | ± 2.5      |
| 3.87                 | -6.59                | 0.009314488           |            |
| 3.60                 | 1.57                 | 0.002219081           |            |
| Max. Deviation (ppm) | -6.59                | 0.009314488           |            |

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| Test Mode | LTE Band 12_CH23095_3M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -6.09                | 0.008607774           | ± 2.5      |
| -20                  | 3.03                 | 0.004282686           |            |
| -10                  | 1.32                 | 0.001865724           |            |
| 0                    | -7.11                | 0.01004947            |            |
| 10                   | -2.01                | 0.002840989           |            |
| 20                   | 3.27                 | 0.004621908           |            |
| 30                   | -5.92                | 0.008367491           |            |
| 40                   | 5.47                 | 0.007731449           |            |
| 50                   | -5.27                | 0.007448763           |            |
| Max. Deviation (ppm) | -7.11                | 0.01004947            |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -3.13                | 0.004424028           | ± 2.5      |
| 3.87                 | -6.52                | 0.009215548           |            |
| 3.60                 | -2.09                | 0.002954064           |            |
| Max. Deviation (ppm) | -6.52                | 0.009215548           |            |

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| Test Mode | LTE Band 12_CH23095_5M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -4.77                | -0.006742049          | ± 2.5      |
| -20                  | -7.57                | -0.010699647          |            |
| -10                  | -7.01                | -0.009908127          |            |
| 0                    | 7.08                 | 0.010007067           |            |
| 10                   | 3.81                 | 0.005385159           |            |
| 20                   | 4.08                 | 0.005766784           |            |
| 30                   | -8.38                | -0.011844523          |            |
| 40                   | -3.56                | -0.005031802          |            |
| 50                   | 2.31                 | 0.003265018           |            |
| Max. Deviation (ppm) | -8.38                | -0.011844523          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -5.03                | -0.007109541          | ± 2.5      |
| 3.87                 | -7.54                | -0.010657244          |            |
| 3.60                 | -5.37                | -0.007590106          |            |
| Max. Deviation (ppm) | -7.54                | -0.010657244          |            |

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| Test Mode | LTE Band 12_CH23095_10M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 5.62                 | 0.007943463           | ± 2.5      |
| -20                  | -6.85                | -0.009681979          |            |
| -10                  | -2.66                | -0.003759717          |            |
| 0                    | 8.96                 | 0.012664311           |            |
| 10                   | 2.62                 | 0.00370318            |            |
| 20                   | -8.55                | -0.012084806          |            |
| 30                   | 6.14                 | 0.008678445           |            |
| 40                   | 9.12                 | 0.012890459           |            |
| 50                   | -7.85                | -0.011095406          |            |
| Max. Deviation (ppm) | 9.12                 | 0.012890459           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -2.36                | -0.003335689          | ± 2.5      |
| 3.87                 | 3.95                 | 0.005583039           |            |
| 3.60                 | -7.72                | -0.010911661          |            |
| Max. Deviation (ppm) | -7.72                | -0.010911661          |            |

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| Test Mode | LTE Band 17_CH23790_5M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -5.49                | -0.007732394          | ± 2.5      |
| -20                  | 3.94                 | 0.005549296           |            |
| -10                  | 5.72                 | 0.008056338           |            |
| 0                    | -8.84                | -0.012450704          |            |
| 10                   | -2.68                | -0.003774648          |            |
| 20                   | 3.96                 | 0.005577465           |            |
| 30                   | -4.64                | -0.006535211          |            |
| 40                   | 2.15                 | 0.003028169           |            |
| 50                   | 4.04                 | 0.005690141           |            |
| Max. Deviation (ppm) | -8.84                | -0.012450704          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 5.58                 | 0.007859155           | ± 2.5      |
| 3.87                 | 3.38                 | 0.004760563           |            |
| 3.60                 | -3.24                | -0.00456338           |            |
| Max. Deviation (ppm) | 5.58                 | 0.007859155           |            |

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| Test Mode | LTE Band 17_CH23790_10M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -2.83                | -0.003985915          | ± 2.5      |
| -20                  | 1.32                 | 0.001859155           |            |
| -10                  | 5.39                 | 0.007591549           |            |
| 0                    | -1.36                | -0.001915493          |            |
| 10                   | 1.15                 | 0.001619718           |            |
| 20                   | -4.43                | -0.006239437          |            |
| 30                   | -7.09                | -0.009985915          |            |
| 40                   | -2.86                | -0.004028169          |            |
| 50                   | 7.14                 | 0.010056338           |            |
| Max. Deviation (ppm) | 7.14                 | 0.010056338           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -7.75                | -0.010915493          | ± 2.5      |
| 3.87                 | 5.26                 | 0.007408451           |            |
| 3.60                 | -6.81                | -0.009591549          |            |
| Max. Deviation (ppm) | -7.75                | -0.010915493          |            |

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| Test Mode | LTE Band 38_CH38000_5M |
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#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 3.81                 | 0.001468208           | ± 2.5      |
| -20                  | -2.04                | -0.000786127          |            |
| -10                  | 8.54                 | 0.003290944           |            |
| 0                    | -8.44                | -0.003252408          |            |
| 10                   | 2.55                 | 0.000982659           |            |
| 20                   | 2.52                 | 0.000971098           |            |
| 30                   | -5.99                | -0.002308285          |            |
| 40                   | 3.25                 | 0.001252408           |            |
| 50                   | -4.70                | -0.001811175          |            |
| Max. Deviation (ppm) | 8.54                 | 0.003290944           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -6.73                | -0.002593449          | ± 2.5      |
| 3.87                 | -4.42                | -0.001703276          |            |
| 3.60                 | 1.41                 | 0.000543353           |            |
| Max. Deviation (ppm) | -6.73                | -0.002593449          |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 38_CH38000_10M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -2.37                | -0.000913295          | ± 2.5      |
| -20                  | 5.13                 | 0.001976879           |            |
| -10                  | -2.18                | -0.000840077          |            |
| 0                    | 8.03                 | 0.003094412           |            |
| 10                   | -0.69                | -0.000265896          |            |
| 20                   | -9.14                | -0.003522158          |            |
| 30                   | 5.72                 | 0.002204239           |            |
| 40                   | -9.55                | -0.003680154          |            |
| 50                   | -3.45                | -0.00132948           |            |
| Max. Deviation (ppm) | -9.55                | -0.003680154          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -0.86                | -0.000331407          | ± 2.5      |
| 3.87                 | -2.51                | -0.000967245          |            |
| 3.60                 | -4.95                | -0.001907514          |            |
| Max. Deviation (ppm) | -4.95                | -0.001907514          |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 38_CH38000_15M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -8.67                | -0.00334104           | ± 2.5      |
| -20                  | 3.19                 | 0.001229287           |            |
| -10                  | -0.27                | -0.000104046          |            |
| 0                    | -5.51                | -0.002123314          |            |
| 10                   | -4.60                | -0.00177264           |            |
| 20                   | -1.90                | -0.000732177          |            |
| 30                   | 5.70                 | 0.002196532           |            |
| 40                   | 2.01                 | 0.000774566           |            |
| 50                   | -6.72                | -0.002589595          |            |
| Max. Deviation (ppm) | -8.67                | -0.00334104           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -5.74                | -0.002211946          | ± 2.5      |
| 3.87                 | -5.53                | -0.002131021          |            |
| 3.60                 | 8.77                 | 0.003379576           |            |
| Max. Deviation (ppm) | 8.77                 | 0.003379576           |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 38_CH38000_20M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -9.63                | -0.003710983          | ± 2.5      |
| -20                  | 9.87                 | 0.003803468           |            |
| -10                  | 7.47                 | 0.002878613           |            |
| 0                    | 3.87                 | 0.001491329           |            |
| 10                   | 5.80                 | 0.002235067           |            |
| 20                   | 8.08                 | 0.00311368            |            |
| 30                   | -5.82                | -0.002242775          |            |
| 40                   | -5.11                | -0.001969171          |            |
| 50                   | -8.19                | -0.003156069          |            |
| Max. Deviation (ppm) | 9.87                 | 0.003803468           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 2.44                 | 0.00094027            | ± 2.5      |
| 3.87                 | 2.20                 | 0.000847784           |            |
| 3.60                 | 4.90                 | 0.001888247           |            |
| Max. Deviation (ppm) | 4.9                  | 0.001888247           |            |

|           |                        |
|-----------|------------------------|
| Test Mode | LTE Band 41_CH40640_5M |
|-----------|------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -6.88                | -0.002653297          | ± 2.5      |
| -20                  | 8.93                 | 0.003443887           |            |
| -10                  | 5.63                 | 0.00217123            |            |
| 0                    | 3.57                 | 0.001376784           |            |
| 10                   | 0.15                 | 5.78481E-05           |            |
| 20                   | -6.23                | -0.002402622          |            |
| 30                   | 0.87                 | 0.000335519           |            |
| 40                   | 8.12                 | 0.003131508           |            |
| 50                   | -2.59                | -0.000998843          |            |
| Max. Deviation (ppm) | 8.93                 | 0.003443887           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 2.70                 | 0.001041265           | ± 2.5      |
| 3.87                 | 3.68                 | 0.001419206           |            |
| 3.60                 | 6.84                 | 0.002637871           |            |
| Max. Deviation (ppm) | 6.84                 | 0.002637871           |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 41_CH40640_10M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 6.53                 | 0.002518319           | ± 2.5      |
| -20                  | -6.75                | -0.002603162          |            |
| -10                  | 6.48                 | 0.002499036           |            |
| 0                    | -5.40                | -0.00208253           |            |
| 10                   | 7.90                 | 0.003046664           |            |
| 20                   | 8.54                 | 0.003293482           |            |
| 30                   | 8.02                 | 0.003092943           |            |
| 40                   | 4.13                 | 0.00159275            |            |
| 50                   | 8.69                 | 0.003351331           |            |
| Max. Deviation (ppm) | 8.69                 | 0.003351331           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -2.50                | -0.000964134          | ± 2.5      |
| 3.87                 | 8.63                 | 0.003328191           |            |
| 3.60                 | -7.22                | -0.00278442           |            |
| Max. Deviation (ppm) | 8.63                 | 0.003328191           |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 41_CH40640_15M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -7.86                | -0.003031238          | ± 2.5      |
| -20                  | -2.34                | -0.00090243           |            |
| -10                  | 4.15                 | 0.001600463           |            |
| 0                    | 0.77                 | 0.000296953           |            |
| 10                   | -3.70                | -0.001426919          |            |
| 20                   | 6.50                 | 0.002506749           |            |
| 30                   | -1.35                | -0.000520632          |            |
| 40                   | 0.01                 | 3.85654E-06           |            |
| 50                   | -0.38                | -0.000146548          |            |
| Max. Deviation (ppm) | -7.86                | -0.003031238          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 1.75                 | 0.000674894           | ± 2.5      |
| 3.87                 | -8.20                | -0.00316236           |            |
| 3.60                 | -2.34                | -0.00090243           |            |
| Max. Deviation (ppm) | -8.2                 | -0.00316236           |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 41_CH40640_20M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -7.30                | -0.002815272          | ± 2.5      |
| -20                  | -6.87                | -0.002649441          |            |
| -10                  | 4.01                 | 0.001546471           |            |
| 0                    | 4.41                 | 0.001700733           |            |
| 10                   | 6.91                 | 0.002664867           |            |
| 20                   | -9.26                | -0.003571153          |            |
| 30                   | -4.48                | -0.001727728          |            |
| 40                   | 1.87                 | 0.000721172           |            |
| 50                   | -0.56                | -0.000215966          |            |
| Max. Deviation (ppm) | -9.26                | -0.003571153          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 3.46                 | 0.001334362           | ± 2.5      |
| 3.87                 | 3.41                 | 0.001315079           |            |
| 3.60                 | 4.35                 | 0.001677594           |            |
| Max. Deviation (ppm) | 4.35                 | 0.001677594           |            |

|           |                           |
|-----------|---------------------------|
| Test Mode | LTE Band 66_CH132322_1.4M |
|-----------|---------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 8.85                 | 0.005071633           | ± 2.5      |
| -20                  | 1.41                 | 0.000808023           |            |
| -10                  | 7.58                 | 0.00434384            |            |
| 0                    | -2.22                | 0.001272206           |            |
| 10                   | 6.94                 | 0.003977077           |            |
| 20                   | 2.86                 | 0.001638968           |            |
| 30                   | -6.02                | 0.003449857           |            |
| 40                   | -0.98                | 0.000561605           |            |
| 50                   | -5.68                | 0.003255014           |            |
| Max. Deviation (ppm) | 8.85                 | 0.005071633           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 5.15                 | 0.002951289           | ± 2.5      |
| 3.87                 | -1.14                | 0.000653295           |            |
| 3.60                 | -3.54                | 0.002028653           |            |
| Max. Deviation (ppm) | 5.15                 | 0.002951289           |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 66_CH132322_3M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | 6.45                 | 0.003696275           | ± 2.5      |
| -20                  | -6.78                | 0.003885387           |            |
| -10                  | 3.17                 | 0.001816619           |            |
| 0                    | -6.25                | 0.003581662           |            |
| 10                   | 2.60                 | 0.001489971           |            |
| 20                   | -3.54                | 0.002028653           |            |
| 30                   | -7.10                | 0.004068768           |            |
| 40                   | -1.05                | 0.000601719           |            |
| 50                   | -5.92                | 0.00339255            |            |
| Max. Deviation (ppm) | -7.1                 | 0.004068768           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 6.94                 | 0.003977077           | ± 2.5      |
| 3.87                 | 5.80                 | 0.003323782           |            |
| 3.60                 | 7.40                 | 0.004240688           |            |
| Max. Deviation (ppm) | 7.4                  | 0.004240688           |            |

|           |                         |
|-----------|-------------------------|
| Test Mode | LTE Band 66_CH132322_5M |
|-----------|-------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -5.50                | -0.003151862          | ± 2.5      |
| -20                  | 7.83                 | 0.004487106           |            |
| -10                  | -3.18                | -0.00182235           |            |
| 0                    | -3.00                | -0.001719198          |            |
| 10                   | 2.57                 | 0.001472779           |            |
| 20                   | -6.50                | -0.003724928          |            |
| 30                   | 4.87                 | 0.002790831           |            |
| 40                   | -2.15                | -0.001232092          |            |
| 50                   | -7.23                | -0.004143266          |            |
| Max. Deviation (ppm) | 7.82                 | 0.004487106           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 1.01                 | 0.000578797           | ± 2.5      |
| 3.87                 | 2.05                 | 0.001174785           |            |
| 3.60                 | 7.03                 | 0.004028653           |            |
| Max. Deviation (ppm) | 7.03                 | 0.004028653           |            |

|           |                          |
|-----------|--------------------------|
| Test Mode | LTE Band 66_CH132322_10M |
|-----------|--------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -4.55                | -0.00260745           | ± 2.5      |
| -20                  | 6.92                 | 0.003965616           |            |
| -10                  | 6.79                 | 0.003891117           |            |
| 0                    | 3.88                 | 0.002223496           |            |
| 10                   | 7.82                 | 0.004481375           |            |
| 20                   | 3.87                 | 0.002217765           |            |
| 30                   | 5.92                 | 0.00339255            |            |
| 40                   | -2.47                | -0.001415473          |            |
| 50                   | 1.03                 | 0.000590258           |            |
| Max. Deviation (ppm) | 7.82                 | 0.004481375           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 4.97                 | 0.002848138           | ± 2.5      |
| 3.87                 | 6.57                 | 0.003765043           |            |
| 3.60                 | 3.34                 | 0.00191404            |            |
| Max. Deviation (ppm) | 6.57                 | 0.003765043           |            |

|           |                          |
|-----------|--------------------------|
| Test Mode | LTE Band 66_CH132322_15M |
|-----------|--------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -5.42                | -0.003106017          | ± 2.5      |
| -20                  | -6.03                | -0.003455587          |            |
| -10                  | 5.09                 | 0.002916905           |            |
| 0                    | -8.63                | -0.004945559          |            |
| 10                   | -8.87                | -0.005083095          |            |
| 20                   | 6.68                 | 0.00382808            |            |
| 30                   | -3.96                | -0.002269341          |            |
| 40                   | -6.57                | -0.003765043          |            |
| 50                   | -7.49                | -0.004292264          |            |
| Max. Deviation (ppm) | -8.87                | -0.005083095          |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | -6.06                | -0.003472779          | ± 2.5      |
| 3.87                 | -2.97                | -0.001702006          |            |
| 3.60                 | -1.43                | -0.000819484          |            |
| Max. Deviation (ppm) | -6.06                | -0.003472779          |            |

|           |                          |
|-----------|--------------------------|
| Test Mode | LTE Band 66_CH132322_20M |
|-----------|--------------------------|

#### Temperature vs. Frequency Stability

| Temperature(°C)      | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| -30                  | -4.93                | -0.002825215          | ± 2.5      |
| -20                  | -0.68                | -0.000389685          |            |
| -10                  | -6.58                | -0.003770774          |            |
| 0                    | -4.11                | -0.002355301          |            |
| 10                   | 2.73                 | 0.00156447            |            |
| 20                   | -2.44                | -0.001398281          |            |
| 30                   | -6.11                | -0.003501433          |            |
| 40                   | 2.47                 | 0.001415473           |            |
| 50                   | 7.37                 | 0.004223496           |            |
| Max. Deviation (ppm) | 7.37                 | 0.004223496           |            |

#### Voltage vs. Frequency Stability

| Voltage(Volts)       | Frequency Error (Hz) | Frequency Error (ppm) | Limit(ppm) |
|----------------------|----------------------|-----------------------|------------|
| 4.45                 | 3.45                 | 0.001977077           | ± 2.5      |
| 3.87                 | 6.41                 | 0.003673352           |            |
| 3.60                 | -7.63                | -0.004372493          |            |
| Max. Deviation (ppm) | -7.63                | -0.004372493          |            |

End of Test Report