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| Qcom UEcapability Parser | <https://dustinchen26.github.io/bw/> |
| Wireshark Parser | <https://dustinchen26.github.io/bw_wireshark/> |

**Reference: spec 38.306**

* (Rule1) For FR1, the bits in channelBWs-DL starting from the leftmost bit indicate 5, 10, 15, 20, 25, 30, 40, 50, 60 and 80MHz. ex: channelBWs-DL fr1 :{scs-30kHz '00010111 11'B},
* (Rule2) For FR1, the leading/leftmost bit in channelBWs-DL-v1590 indicates 70MHz, and all the remaining bits in channelBWs-DL-v1590 shall be set to 0. ex:{scs-30kHz '10000000 00000000'B}
* (Rule3) To determine whether the UE supports a channel bandwidth of 90 MHz, the network may ignore this capability for and validate instead the channelBW-90mhz and the supportedBandwidthCombinationSet. ex: channelBW-90mhz supported
* (Rule4) whether the UE supports a channel bandwidth of 100 MHz, ex: supportedBandwidthDL fr1 : mhz100

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| Mifi n41 | Mifi n78 | Mifi n79 |
| bandNR: 41, scs-30kHz '00010111 11' Supported Bandwidths (scs-30kHz): 20, 30, 40, 50, 60, 80, 90, 100 MHz, | bandNR: 78, scs-30kHz '00010111 11' Supported Bandwidths (scs-30kHz): 20, 30, 40, 50, 60, 70, 80, 90, 100 MHz, | bandNR: 79, scs-30kHz '00000011 11' Supported Bandwidths (scs-30kHz): 40, 50, 60, 70, 80, 100 MHz, |
| {  bandNR 41,  pusch-256QAM supported,  ue-PowerClass pc3,  channelBWs-DL fr1 :  {  scs-15kHz '00000000 00'B,  scs-30kHz '00010111 11'B,  scs-60kHz '00000000 00'B  },  channelBWs-UL fr1 :  {  scs-15kHz '00000000 00'B,  scs-30kHz '00010111 11'B,  scs-60kHz '00000000 00'B  },  maxUplinkDutyCycle-PC2-FR1 n100  }, | {  bandNR 78,  pusch-256QAM supported,  ue-PowerClass pc3,  channelBWs-DL fr1 :  {  scs-15kHz '00000000 00'B,  scs-30kHz '00010111 11'B,  scs-60kHz '00000000 00'B  },  channelBWs-UL fr1 :  {  scs-15kHz '00000000 00'B,  scs-30kHz '00010111 11'B,  scs-60kHz '00000000 00'B  },  maxUplinkDutyCycle-PC2-FR1 n100,  channelBWs-DL-v1590 fr1 :  {  scs-30kHz '10000000 00000000'B  },  channelBWs-UL-v1590 fr1 :  {  scs-30kHz '10000000 00000000'B  }  }, | {  bandNR 79,  pusch-256QAM supported,  ue-PowerClass pc3,  channelBWs-DL fr1 :  {  scs-15kHz '00000000 00'B,  scs-30kHz '00010111 11'B,  scs-60kHz '00000000 00'B  },  channelBWs-UL fr1 :  {  scs-15kHz '00000000 00'B,  scs-30kHz '00010111 11'B,  scs-60kHz '00000000 00'B  },  maxUplinkDutyCycle-PC2-FR1 n100,  channelBWs-DL-v1590 fr1 :  {  scs-30kHz '10000000 00000000'B  },  channelBWs-UL-v1590 fr1 :  {  scs-30kHz '10000000 00000000'B  }  }, |
| supportedBandCombinationList  {  {  bandList  {  nr :  {  bandNR 41,  ca-BandwidthClassDL-NR a,  ca-BandwidthClassUL-NR a  }  },  featureSetCombination 0,  powerClass-v1530 pc2  }  }, | supportedBandCombinationList  {  {  bandList  {  nr :  {  bandNR 78,  ca-BandwidthClassDL-NR a,  ca-BandwidthClassUL-NR a  }  },  featureSetCombination 0,  powerClass-v1530 pc2  }  }, | supportedBandCombinationList  {  {  bandList  {  nr :  {  bandNR 79,  ca-BandwidthClassDL-NR a,  ca-BandwidthClassUL-NR a  }  },  featureSetCombination 0,  powerClass-v1530 pc2  }  }, |
| featureSetCombinations  {  {  {  nr :  {  downlinkSetNR 2,  uplinkSetNR 2  }  }  }  }, | featureSetCombinations  {  {  {  nr :  {  downlinkSetNR 2,  uplinkSetNR 2  }  }  }  }, | featureSetCombinations  {  {  {  nr :  {  downlinkSetNR 1,  uplinkSetNR 1  }  }  }  }, |
| featureSets  {  featureSetsDownlink  {  {  featureSetListPerDownlinkCC  {  1  },  ue-SpecificUL-DL-Assignment supported  },  {  featureSetListPerDownlinkCC  {  2  },  ue-SpecificUL-DL-Assignment supported  }, | featureSets  {  featureSetsDownlink  {  {  featureSetListPerDownlinkCC  {  1  },  ue-SpecificUL-DL-Assignment supported  },  {  featureSetListPerDownlinkCC  {  2  },  ue-SpecificUL-DL-Assignment supported  }, | featureSets  {  featureSetsDownlink  {  {  featureSetListPerDownlinkCC  {  1  },  ue-SpecificUL-DL-Assignment supported  }, |
| featureSetsDownlinkPerCC  {  {  supportedSubcarrierSpacingDL kHz30,  supportedBandwidthDL fr1 : mhz100,  maxNumberMIMO-LayersPDSCH fourLayers,  supportedModulationOrderDL qam256  },  {  supportedSubcarrierSpacingDL kHz30,  supportedBandwidthDL fr1 : mhz100,  channelBW-90mhz supported,  maxNumberMIMO-LayersPDSCH fourLayers,  supportedModulationOrderDL qam256  }, | featureSetsDownlinkPerCC  {  {  supportedSubcarrierSpacingDL kHz30,  supportedBandwidthDL fr1 : mhz100,  maxNumberMIMO-LayersPDSCH fourLayers,  supportedModulationOrderDL qam256  },  {  supportedSubcarrierSpacingDL kHz30,  supportedBandwidthDL fr1 : mhz100,  channelBW-90mhz supported,  maxNumberMIMO-LayersPDSCH fourLayers,  supportedModulationOrderDL qam256  }, | featureSetsDownlinkPerCC  {  {  supportedSubcarrierSpacingDL kHz30,  supportedBandwidthDL fr1 : mhz100,  maxNumberMIMO-LayersPDSCH fourLayers,  supportedModulationOrderDL qam256  }, |
| featureSetsUplink  {  {  featureSetListPerUplinkCC  {  1  },  supportedSRS-Resources  {  maxNumberAperiodicSRS-PerBWP n16,  maxNumberAperiodicSRS-PerBWP-PerSlot 6,  maxNumberPeriodicSRS-PerBWP n16,  maxNumberPeriodicSRS-PerBWP-PerSlot 6,  maxNumberSemiPersistentSRS-PerBWP n2,  maxNumberSemiPersistentSRS-PerBWP-PerSlot 2,  maxNumberSRS-Ports-PerResource n2  }  },  {  featureSetListPerUplinkCC  {  2  },  supportedSRS-Resources  {  maxNumberAperiodicSRS-PerBWP n16,  maxNumberAperiodicSRS-PerBWP-PerSlot 6,  maxNumberPeriodicSRS-PerBWP n16,  maxNumberPeriodicSRS-PerBWP-PerSlot 6,  maxNumberSemiPersistentSRS-PerBWP n2,  maxNumberSemiPersistentSRS-PerBWP-PerSlot 2,  maxNumberSRS-Ports-PerResource n2  }  }, | featureSetsUplink  {  {  featureSetListPerUplinkCC  {  1  },  supportedSRS-Resources  {  maxNumberAperiodicSRS-PerBWP n16,  maxNumberAperiodicSRS-PerBWP-PerSlot 6,  maxNumberPeriodicSRS-PerBWP n16,  maxNumberPeriodicSRS-PerBWP-PerSlot 6,  maxNumberSemiPersistentSRS-PerBWP n2,  maxNumberSemiPersistentSRS-PerBWP-PerSlot 2,  maxNumberSRS-Ports-PerResource n2  }  },  {  featureSetListPerUplinkCC  {  2  },  supportedSRS-Resources  {  maxNumberAperiodicSRS-PerBWP n16,  maxNumberAperiodicSRS-PerBWP-PerSlot 6,  maxNumberPeriodicSRS-PerBWP n16,  maxNumberPeriodicSRS-PerBWP-PerSlot 6,  maxNumberSemiPersistentSRS-PerBWP n2,  maxNumberSemiPersistentSRS-PerBWP-PerSlot 2,  maxNumberSRS-Ports-PerResource n2  }  }, | featureSetsUplink  {  {  featureSetListPerUplinkCC  {  1  },  supportedSRS-Resources  {  maxNumberAperiodicSRS-PerBWP n16,  maxNumberAperiodicSRS-PerBWP-PerSlot 6,  maxNumberPeriodicSRS-PerBWP n16,  maxNumberPeriodicSRS-PerBWP-PerSlot 6,  maxNumberSemiPersistentSRS-PerBWP n2,  maxNumberSemiPersistentSRS-PerBWP-PerSlot 2,  maxNumberSRS-Ports-PerResource n2  }  }, |
| featureSetsUplinkPerCC  {  {  supportedSubcarrierSpacingUL kHz30,  supportedBandwidthUL fr1 : mhz100,  mimo-CB-PUSCH  {  maxNumberMIMO-LayersCB-PUSCH twoLayers,  maxNumberSRS-ResourcePerSet 1  },  supportedModulationOrderUL qam256  },  {  supportedSubcarrierSpacingUL kHz30,  supportedBandwidthUL fr1 : mhz100,  channelBW-90mhz supported,  mimo-CB-PUSCH  {  maxNumberMIMO-LayersCB-PUSCH twoLayers,  maxNumberSRS-ResourcePerSet 1  },  supportedModulationOrderUL qam256  }, | featureSetsUplinkPerCC  {  {  supportedSubcarrierSpacingUL kHz30,  supportedBandwidthUL fr1 : mhz100,  mimo-CB-PUSCH  {  maxNumberMIMO-LayersCB-PUSCH twoLayers,  maxNumberSRS-ResourcePerSet 1  },  supportedModulationOrderUL qam256  },  {  supportedSubcarrierSpacingUL kHz30,  supportedBandwidthUL fr1 : mhz100,  channelBW-90mhz supported,  mimo-CB-PUSCH  {  maxNumberMIMO-LayersCB-PUSCH twoLayers,  maxNumberSRS-ResourcePerSet 1  },  supportedModulationOrderUL qam256  }, | featureSetsUplinkPerCC  {  {  supportedSubcarrierSpacingUL kHz30,  supportedBandwidthUL fr1 : mhz100,  mimo-CB-PUSCH  {  maxNumberMIMO-LayersCB-PUSCH twoLayers,  maxNumberSRS-ResourcePerSet 1  },  supportedModulationOrderUL qam256  }, |