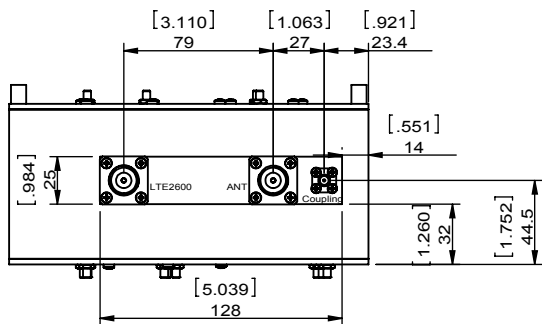
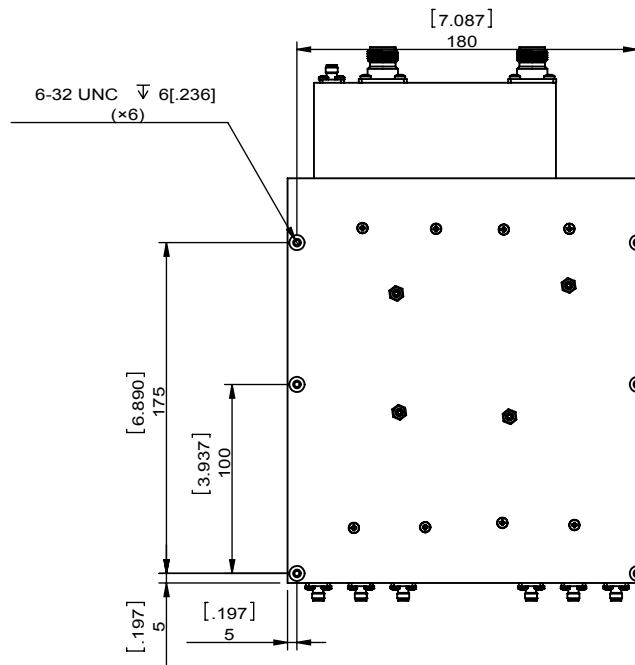
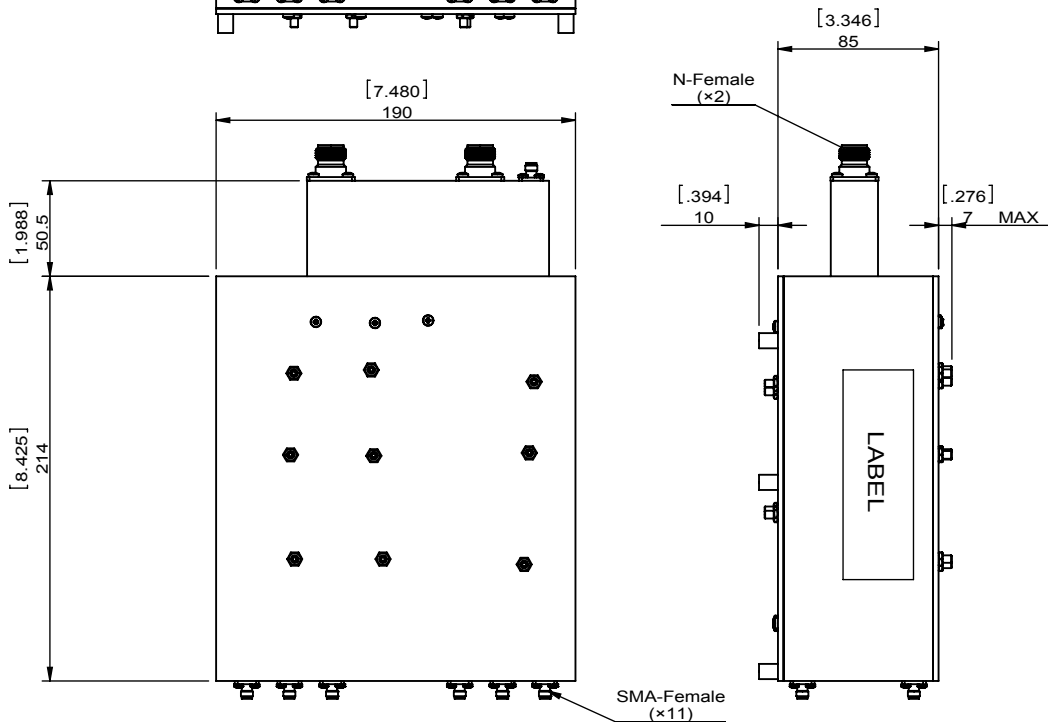
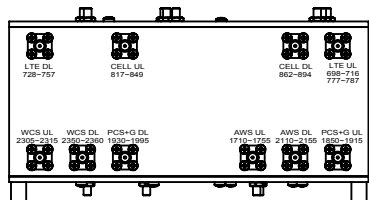


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Document No. QR4-700-T-003				REV. 0		DESCRIPTION		REVISOR LJ.Zhang		DATE 11.26.2014	
REV. A/0										APPROVED David	



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JQL JQL Electronic Inc				
MATERIAL:		DWG NO: JFCM0698T2690NF		
SURFACE TREATMENT: PAINTED BLACK		DWG BY:	LJ.Zhang	11.26.2014
DESCRIPTION: MULTIPLEXERS		CHK'D BY:		SCALE
		APPV'D BY:		1:4
		Unit: mm[inch]	Tolerance: Liner: ±0.25 Anguar: ±0.5°	The First:
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Document No.		QR4-700-T-003		REV.		DESCRIPTION		REVISOR		DATE	
REV.		A/0		0				LJ.Zhang		11.21.2014	
										APPROVED	
										David	

LTE700

ITEM	SPECIFICATION			REMARK
	UL		DL	
Frequency(MHz)	698~716	777~787	728~757	
Insertion Loss(dB)	2.7 Max	3.3 Max	1.7 Max	
Return Loss(dB)@all ports	20 Min		19 Min	
Ripple(dB)@P-P	1.2 Max	1.2 Max	0.8 Max	
Attenuation(dB)	100 Min@728~757 MHz 25 Min@763~775 MHz 80 Min@820~2700 MHz		100 Min@698~716 MHz 100 Min@777~787 MHz 80 Min@820~2700 MHz	
2 nd Harmonic Attenuation(dB)	NA		100 Min@1456~1514 MHz	
Isolation(dB):Port to Port DL to UL(In band)	100 Min@698~716 MHz 100 Min@777~787 MHz		Antenna Port Terminated 50Ω	
	90 Min@698~716 MHz 90 Min@777~787 MHz		Antenna Port Open	
	80 Min@716~728 MHz 80 Min@757~777 MHz		Antenna Port Terminated 50Ω	
Isolation(dB):Port to Port DL to UL(Crossover)	78 Min@716~728 MHz 80 Min@757~777 MHz		Antenna Port Open	

PCS+G Block

ITEM	SPECIFICATION			REMARK
	UL		DL	
Frequency(MHz)	1850~1915		1930~1995	
Insertion Loss(dB)	2.7Max		2.2 Max	
Return Loss(dB)@all ports	20 Min		19 Min	
Ripple(dB)@P-P	1.6 Max		1.3 Max	
Group Delay Variation in any 5MHz(nSec)	55		55	
Attenuation(dB)	100 Min@700~1760 MHz 100 Min@1930~1995 MHz 100 Min@2000~2700 MHz		100 Min@700~1760 MHz 110 Min@1850~1915 MHz 90 Min@2060~2700 MHz	
Isolation(dB):Port to Port DL to UL(In band)	110 Min @1850~1915 MHz 100 Min@1930~1995 MHz		Antenna Port 50Ω Terminated	
	100 Min @1850~1915 MHz 90 Min@1930~1995 MHz		Antenna Port Open	
Isolation(dB):Port to Port DL to UL(Crossover)	85 Min@1915~1930MHz		Antenna Port 50Ω Terminated	
	85 Min@1915~1930MHz		Antenna Port Open	
Isolation(dB) : Port to Port AWS DL to PCS UL (In Band)	110 Min@1850~1915 MHz 110 Min@2110~2155 MHz		Antenna port 50Ω Terminated&Open	
Isolation(dB) : Port to Port AWS DL to PCS UL (Crossover)	85 Min@1915~2110 MHz 85 Min@2155~2305 MHz		Antenna port 50Ω Terminated&Open	

CELL800+eSMR

ITEM	SPECIFICATION			REMARK
	UL		DL	
Frequency(MHz)	817~849		862~894	
Insertion Loss(dB)	3 Max		1.6 Max	
Return Loss(dB)@all ports	20 Min		19 Min	
Ripple(dB)@P-P	1.5 Max		1 Max	
Group Delay Variation in any 5MHz(nSec)	55@817~822 MHz 40@822~844 MHz 90@844~849 MHz		55@862~867 MHz 40@867~889 MHz 55@889~894 MHz	
Attenuation(dB)	80 Min@700~757 MHz 18 Min@851~860 MHz 90 Min@862~894 MHz 100 Min@900~2700 MHz		100 Min@700~800 MHz 100 Min@817~849 MHz 100 Min@950~2700 MHz	
2 nd Harmonic Attenuation(dB)	NA		110 Min@1724~1788 MHz	
Isolation(dB):Port to Port DL to UL(In band)	100 Min @817~849 MHz 90 Min@862~894 MHz		Antenna Port 50Ω Terminated	
	90 Min@817~849 MHz 90 Min@862~894 MHz		Antenna Port Open	
Isolation(dB):Port to Port DL to UL(Crossover)	85 Min@849~862 MHz		Antenna Port 50Ω Terminated	
	85 Min@849~862 MHz		Antenna Port Open	
Isolation(dB) : Port to Port Cell DL to AWS UL	110 Min@1710~1755 MHz		Antenna port 50Ω Terminated&Open(consider to remove this test)	

JQL JQL Electronic Inc				
MATERIAL:		DWG NO: JFCM0698T2690NF		
SURFACE TREATMENT: PAINTED BLACK		DWG BY:	LJ.Zhang	11.21.2014
DESCRIPTION: MULTIPLEXERS		CHK'D BY:		SCALE
		APPV'D BY:		3:1
Unit: mm[inch]		Tolerance: Liner: ±0.25 Anguar: ±0.5°	The First:	A4



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REV.		A/0		0				LJ.Zhang		11.21.2014	
										APPROVED	
										David	

AWS

ITEM	SPECIFICATION		REMARK
	UL	DL	
Frequency(MHz)	1710~1755	2110~2155	
Insertion Loss(dB)	1.8 Max	1 Max	
Return Loss(dB)	20 Min	19 Min	
Ripple(dB)@P-P	0.5 Max		
Group Delay Variation in any 5MHz(nSec)	55	55	
Attenuation(dB)	110 Min@700~1500 MHz 110 Min@1930~2000 MHz 110 Min@2110~2155 MHz 110 Min@2300~2700 MHz	110 Min@700~1500 MHz 110 Min@1710~1755 MHz 110 Min@1850~1915 MHz 110 Min@2300~2700 MHz	
Isolation(dB):Port to Port DL to UL(In band)	110 Min@1710~1755 MHz 110 Min@2110~2155 MHz		Antenna Port 50ΩTerminated & Open
Isolation(dB):Port to Port DL to UL(Crossover)	110 Min@1755~2110 MHz		Antenna Port 50ΩTerminated
	110 Min@1755~2110 MHz		Antenna Port Open
Isolation:Port to Port AWS DL to WCS UL (In Band)	110 Min@2305~2317.5 MHz 110 Min@2110~2155 MHz		Antenna Port 50 Ohm Terminated & Open
Isolation:Port to Port AWS DL to WCS UL (Crossover)	110 Min@2155~2305 MHz		Antenna Port 50 Ohm Terminated & Open

LTE-2600

ITEM	SPECIFICATION		REMARK
	BPF		
Frequency(MHz)	2496~2690		
Insertion Loss(dB)	0.9 Max		
Return Loss(dB)	16 Min		
Ripple(dB)@P-P	0.5 Max		
Group Delay Variation in any 5MHz(nSec)	55@2496~2500 MHz 55@2500~2570 MHz 55@2620~2690 MHz		
Attenuation(dB)	110 Min@700~2300 MHz 105 Min@2300~2320 MHz 60 Min@2800~6000 MHz		
Isolation(dB):Port to Port LTE-2600 to WCS UL (In band)	105 Min@2305~2315 MHz		Antenna Port 50ΩTerminated & Open
Isolation(dB):Port to Port LTE-2600 to WCS UL (Crossover)	100 Min@2320~2500 MHz		Antenna Port 50ΩTerminated & Open
Isolation(dB):Port to Port LTE-2600 to PCS-G UL (In Band)	110 Min@1850~1915 MHz		Antenna Port 50 Ohm Terminated & Open
Isolation(dB):Port to Port LTE-2600 to PCS-G UL (Crossover)	100 Min@1915~2500 MHz		Antenna Port 50 Ohm Terminated & Open

WCS

ITEM	SPECIFICATION		REMARK
	UL	DL	
Frequency(MHz)	2305~2315	2350~2360	
Insertion Loss(dB)	3.0Max	2.1 Max	
Return Loss(dB)@all ports	20 Min	19 Min	
Ripple(dB)@P-P	1.2 Max		
Attenuation(dB)	100 Min@700~2155 MHz 10 Min@2320~2324 MHz 65 Min@2324~2347.5 MHz 90 Min@2350~2360 MHz 100 Min@2400~2700 MHz 10 Min@2296~2300 MHz	100 Min@700~2155 MHz 30 Min@2341~2345 MHz 30 Min@2317.5~2341 MHz 90 Min@2305~2315 MHz 90 Min@2400~2414 MHz 100 Min@2414~2700 MHz 13 Min@2362.5~2365 MHz 25 Min@2365~2370 MHz	
Isolation(dB):Port to Port DL to UL(In band)	110 Min @2305~2315 MHz 100 Min@2350~2360 MHz		Antenna Port 50Ω Terminated
	90 Min @2350~2360 MHz 100 Min@2305~2315 MHz		Antenna Port Open
Isolation(dB):Port to Port DL to UL(Crossover)	100 Min@2315~2350MHz		Antenna Port 50Ω Terminated
	100 Min@2315~2350MHz		Antenna Port Open

JQL JQL Electronic Inc				
MATERIAL:		DWG NO: JFCM0698T2690NF		
SURFACE TREATMENT: PAINTED BLACK		DWG BY:	LJ.Zhang	11.21.2014
DESCRIPTION: MULTIPLEXERS		CHK'D BY:		SCALE
		APPV'D BY:		3:1
Unit: mm[inch]		Tolerance: Liner: ±0.25	The First:	A4
		Anguar: ±0.5°		



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REV.	A/0					0		LJ.Zhang	11.21.2014	David	

A

General Electrical Specifications

ITEM	SPECIFICATION	REMARK
Power(w)	50@ CW	
In/Out Impedance(Ω)	50	
Rejection at Second Harmonic(dB)	110 Min	
Attenuation(dB)	70 Min@DC~650 MHz 70 Min@2800~6000 MHz	
ANT Port Coupler(dB)	26 \pm 2@Ripple=2dB Max p-p; Return Loss=10 dB Min	
PIM(dBc): 43dBm per Tone	150 Min	
Operation Temperature($^{\circ}$ C)	-40~+85	

B

C

D

Mechanical Specifications

ITEM	SPECIFICATION	REMARK
Weight(kg)	6kg Max	
In/Out Connector	SMA-Female	
ANT Port Connector	N-Female	
LTE2600 Connector	N-Female	
Humidity	Up to 99%	Non condensing

A

B

C

D

JQL JQL Electronic Inc

MATERIAL:

DWG NO:

JFCM0698T2690NF

SURFACE TREATMENT:

PAINTED BLACK

DWG BY:

LJ.Zhang

11.21.2014

SCALE

DESCRIPTION:

MULTIPLEXERS

CHK'D BY:

APPV'D BY:

3:1

Unit:

mm[inch]

Tolerance:

Liner: \pm 0.25Anguar: \pm 0.5 $^{\circ}$

The First:



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3

WEIGHT:

5

SHEET 4 OF 4