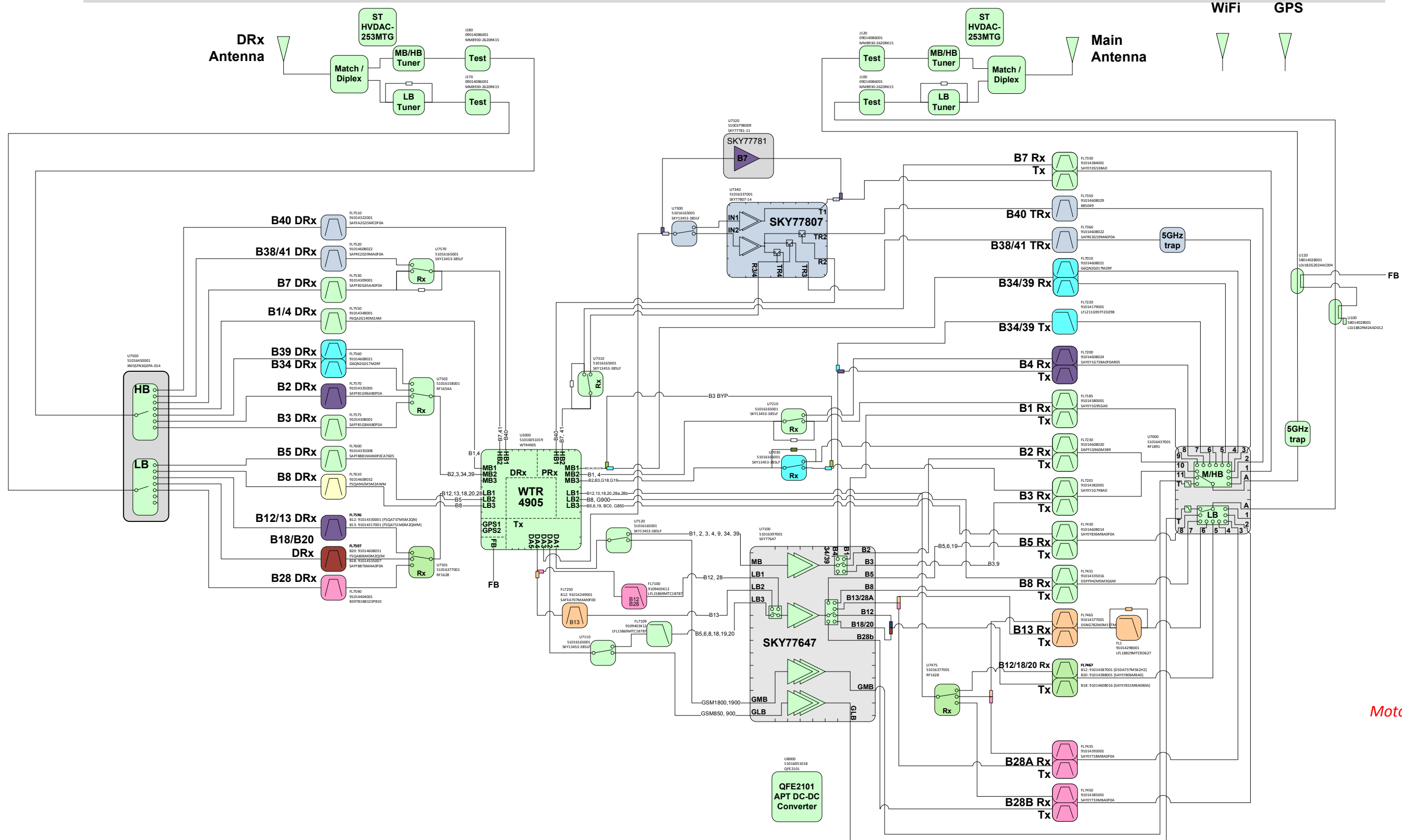


Lynx RF Block Diagram - Superset

SKU	LTE Bands	WCDMA Bands	CDMA Bands	GSM Bands	TD-SCDMA Bands	HW paths
1. VZW:	B2, 3, 4, 5, 7, 13, 20	B1d, 2d, 5d, 8	BC0d, BC1d (SRLTE)	850,900,1800,1900	-	
2. LatAm:	B1, 2, 3, 4, 5, 7, 8, 12, 17, 28	B1d, 2d, 4d, 5d, 8d	-	850,900,1800,1900	-	
3. ROW:	B1, 3, 5, 7, 8, 19, 20, 28, 38, 40, 41	B1d, 2, 5d, 6d, 8d, 9d, 19d	-	850,900,1800,1900	-	
4. China:	B1, 3, 7, 18, 38, 39, 40, 41	B1d, 2, 5d, 8d	BC0d	850,900,1800,1900	B34, B39	

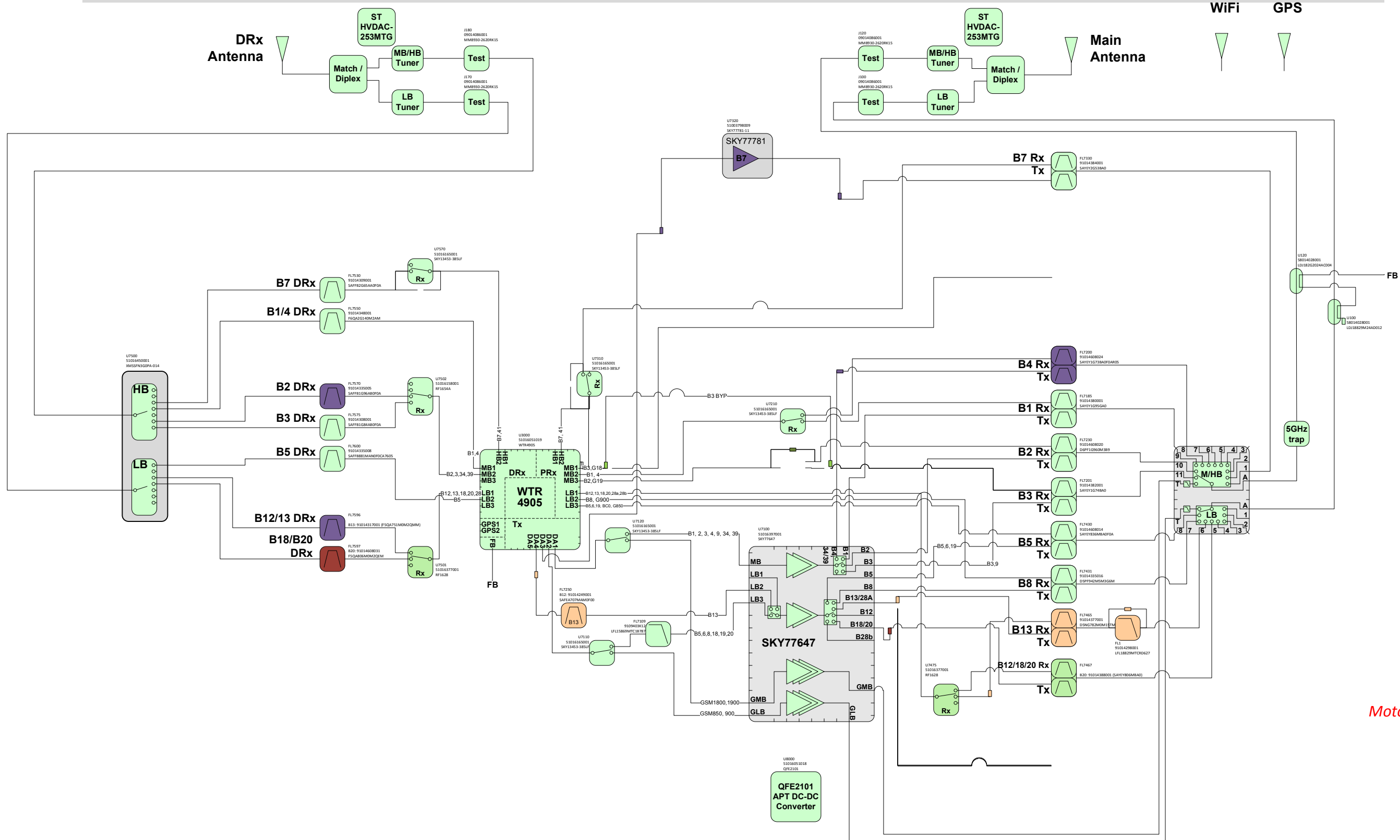


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- SKU1 only
- SKU2 only
- SKU4 only
- SKU1, 2
- SKU1, 2, 3
- SKU1, 3, 4
- SKU2, 3
- SKU3, 4
- SKU2, 3, 4

Lynx RF Block Diagram – SKU1 (Verizon)

SKU	LTE Bands	WCDMA Bands	CDMA Bands	GSM Bands	TD-SCDMA Bands	HW paths
1. VZW:	B2, 3, 4, 5, 7, 13, 20	B1d, 2d, 5d, 8	BC0d, BC1d (SRLTE)	850,900,1800,1900	-	

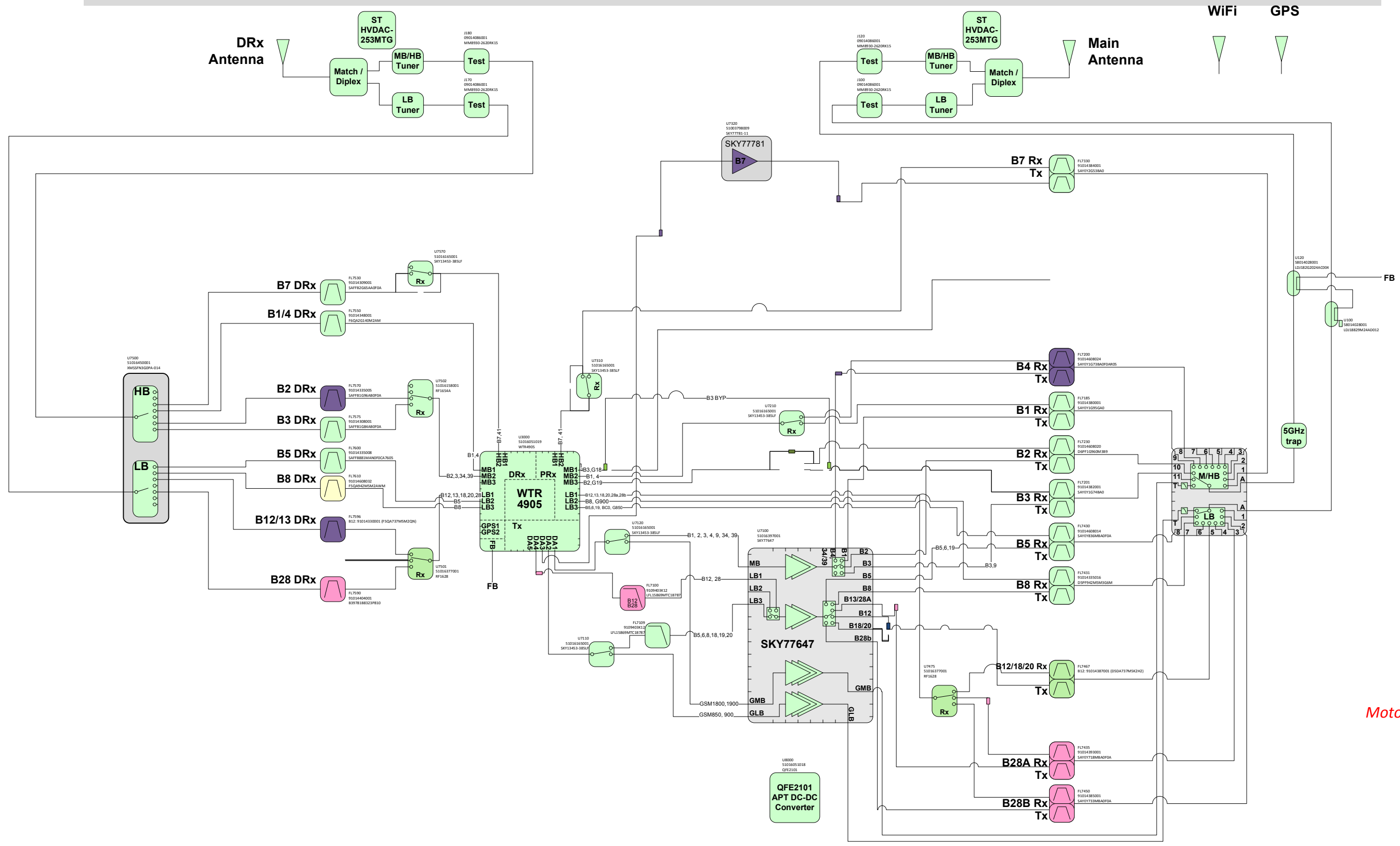


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- SKU4 only
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- SKU1, 2, 3
- SKU1, 3, 4
- SKU2, 3
- SKU3, 4
- SKU2, 3, 4

Lynx RF Block Diagram – SKU2 (LatAm)

SKU	LTE Bands	WCDMA Bands	CDMA Bands	GSM Bands	TD-SCDMA Bands	HW paths
2. LatAm:	B1, 2, 3, 4, 5, 7, 8, 12, 17, 28	B1d, 2d, 4d, 5d, 8d	-	850,900,1800,1900	-	

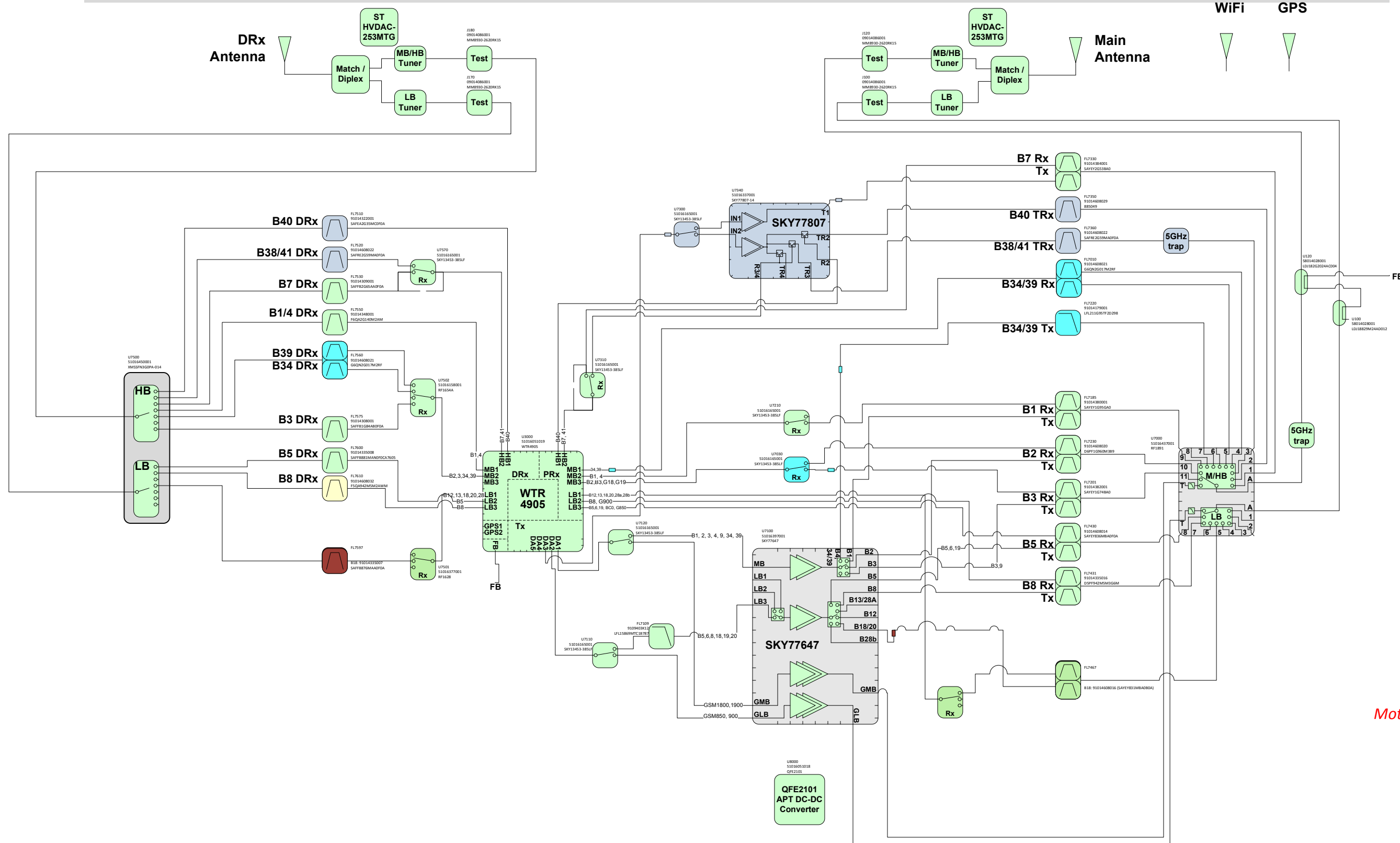


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- SKU4 only
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- SKU1, 2, 3
- SKU1, 3, 4
- SKU2, 3
- SKU3, 4
- SKU2, 3, 4

Lynx RF Block Diagram – SKU4 (China DSDA)

SKU	LTE Bands	WCDMA Bands	CDMA Bands	GSM Bands	TD-SCDMA Bands	HW paths
4. China:	B1, 3, 7, 18, 38, 39, 40, 41	B1d, 2, 5d, 8d	BC0d	850,900,1800,1900	B34, B39	WiFi GPS



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- SKU2 only
- SKU4 only
- SKU1, 2
- SKU1, 2, 3
- SKU1, 3, 4
- SKU2, 3
- SKU3, 4
- SKU2, 3, 4

Revision History

9/10/2014 – Created from DSDA Block Diagrams 9_10_2014b Visio file, Lynx 1Bot-I

9/11/2014 – Added required Tx and PRx connections

9/11/2014b – Added DRx, re-inserted LB tuner for non-DSDA SKU

9/12/2014a – Added B4 ASM jumper with B39 Tx

9/16/2014 – Removed BCO Diversity path from main antenna, moved B12 to DA5

9/17/2014 – Added coloring to indicate placement per SKU, added bypassing around several components

9/24/2014 – Moved crossbar switches to transceiver side of test connectors.

9/24/2014 – RELEASE 1.0

10/1/2014 (VN) – Changed to 2-Bot-B style antenna architecture

- Removed Cross bar

- Removed Lossy divider switches

- B12 and B13 now share same filter pad on DRx due to removal of B13 from ROW

- B28a and B28b are now driven by separate outputs from MMMPA. The SPDT in this path was removed.

- B12 and B13 are jumpered from PA output to either B12 or B13 dup. This is due to removal of B13

- from ROW.

10/2/2014 (BB) – Reduced PRx SP5T to SP4T and jumpered B12 and B13 connections

- Connected DA2 to MMMBPA

10/7/2014 (VN) – Added standalone HBPA PA option for B7 for cost reduction

- Changed B28 TX DA port to DA4 to align with QC.

- Added a B28 Tx LPF on DA input

10/9/2014 (BB) – Added diplexer and additional SP4T on DSDA antenna to align with Callisto 2Bot-G architecture

- Added jumper to bypass B7/B41 DRx switch on VZW SKU

10/9/2014b (BB) – Add jumper to bypass B1/B4 PRx switch in China SKU

10/10/2014 (BB) – Added Latam SKU

- Removed HPF and LPF from Diversity antenna lines

10/14/2014 (BB) – Broke out SKU options (using layer properties from Superset diagram)

- Changed LB DRx SP4T to SP3T

- Added harmonic filter at output of B13 diplexer (with placement option to depop)

- Cleaned up Tx SPDT labeling

- Cascaded power detector

- Removed HPF on primary antenna line

- Removed LPF after BCO diplexer Rx port (FL7701)

10/22/2014 (BB) – Added part numbers and reference designators

- Removed B20 from Latam SKU (changed U7475 to SP3T, share B12 and B20 on single switch throw, jumpered B13 Rx to B28a)

10/22/2014 – RELEASE 1.1

- Added BCO diversity to China SKU

10/22/2014 – RELEASE 1.2

10/23/2014 (VN) - B12 and B13 TX DA BPF are now shared due to space reasons. Jumpers were changed on DA4 and DA5 accordingly

10/28/2014 (BB) – Added part number for DSDA diplexer (91014421001)

11/5/2014 (BB) – DNP'ed jumpers around Rx switches (U7570, U7310, U7210) as product team has chosen to keep common lineup for all SKUs to reduce test complexity. Recommend leaving the zero

- ohm bypass if possible for potential future cost reduction opportunity (~\$0.20 for Verizon and Latam SKUs)

- Replaced U7750 Murata SP8T (DSDA high band switch) with Skyworks SP6T (51016356001)

- Replaced FL7761 (B39 notch) with Tx SAW (Murata) SAFEA1G73MB0FOA

- Removed FL7760 (B1 LPF), moved FL7762 (LPF) to G1800/G1900 side of S7760

11/5/2014 – RELEASE 1.3

11/7/2014 (BB)

- Removed bypass around lowband tuner on China DSDA SKU

11/11/2014 – RELEASE 1.4

11/19/2014 - Moved B4 and B39 to separate switch ports on main ASM, removing jumper option

- Added B8 diversity for China

- Removed all DSDA/SxLTE circuitry and LPF on LB main antenna

- Swapped coupler daisy chain termination and passthrough from HB terminated to LB terminated

- Removed B12 Tx interstage filter, now fed from DA4 through LPF, shared with B28

- Changed B13 diplexer to Taiyo Yuden

- Changed B41 DRx filter to Murata

- Changed main ASM to RF1891

- Added 5GHz notch after B41 Tx filter

11/19/2014 – RELEASE 1.5

12/12/2014 - Added LTE19, W(6,9,19) to ROW

- Added LTE B18 to China

- Removed LTE B25 from Latam

- Changed U7500 to Murata Div ASM

- Changed FL7220 to Single Ended LPF since no DSDA. Removed extra connection from FL7220 to U7000.

- Added jumpers on U7100 PA output for B12/28A/13/20 to align with SKY77647 port mapping recommendation. PA port mapping changed.

12/12/2014 – RELEASE 1.6

01/15/2015 - Added LTE B5 on VZW

- **RELEASE 1.7**

01/21/2015 - Added LTE B38 to China and ROW SKUs in the banding header text

- Added B17 for latam SKU in the banding header text

- **RELEASE 1.8**

03/17/2015 - Added jumper bypass option for B2/B3 PRx MB SPDT switch to improve baseline sensitivity on VZW/ROW/Latam SKUs

- (B3,9,G1800Rx is now routed to PRX_MB1 on VZW/ROW/Latam SKUs, on China these stay on PRX_MB3)

- **RELEASE 1.9**

Open Issues

~~9/11/2014 – Determine current Tx filter requirements for B12/17, B13, B28 for WTR4905~~

Use BPF for B13, LPF for B12/17 and B28 (10/1/2014)

~~9/11/2014 – Determine if GSM1800/1900 can be cobanded with B3 and B2 or if separate dual-GSM filter required~~

Can be cobanded per QC reference design (9/16/2014)

10/22/2014 – Assume no antenna tuner for DSDA antenna, Assume up to 3 PTICs for Main and DRx antennas