



cdma2000

BLOCK DIAGRAM

ED
12. 2000.



ELECTRONICS

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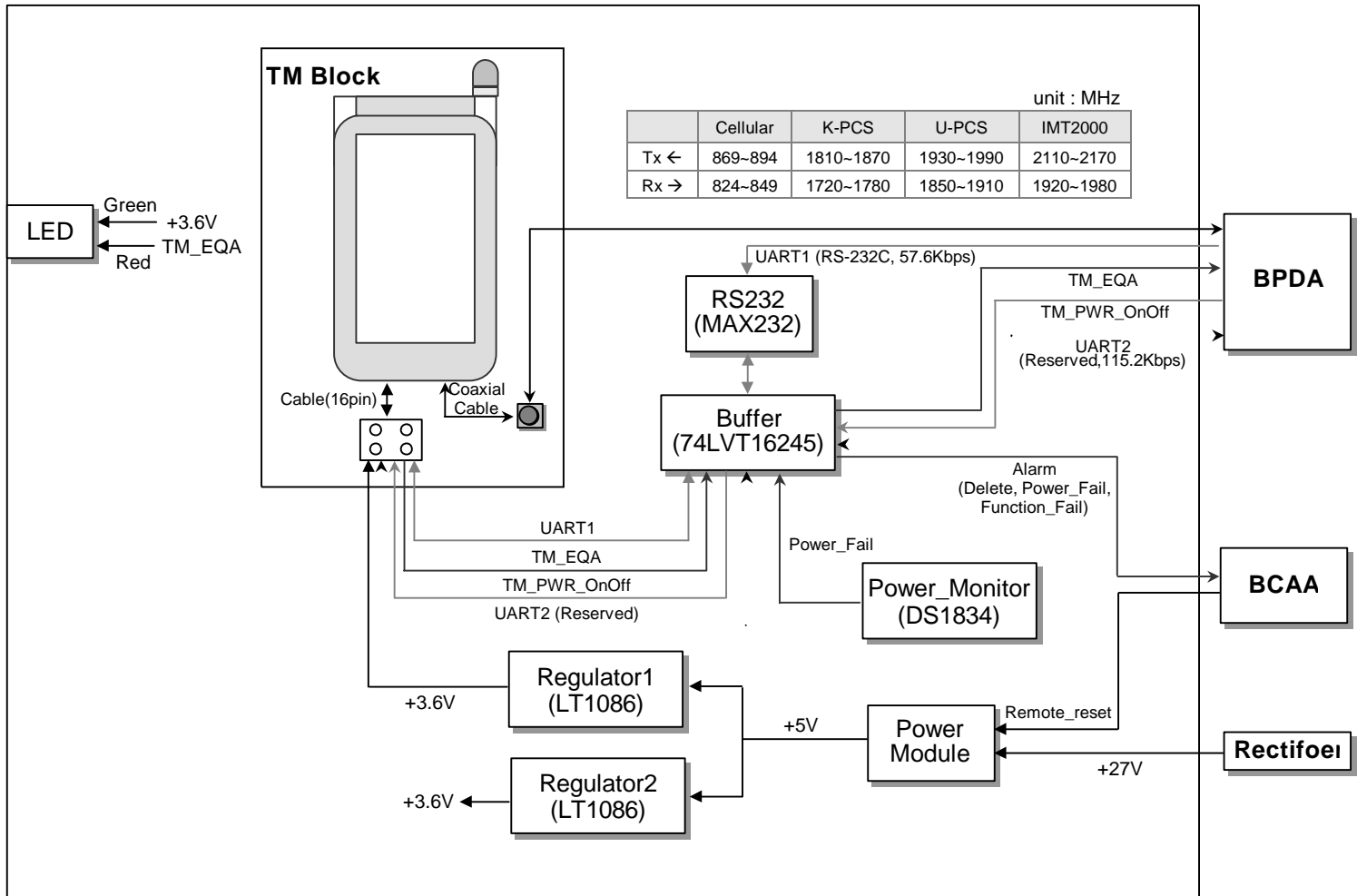
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CHAPTER 1

BLOCK DIAGRAM

1 BTMA Block Diagram



1.1 BTMA feature

Core Component

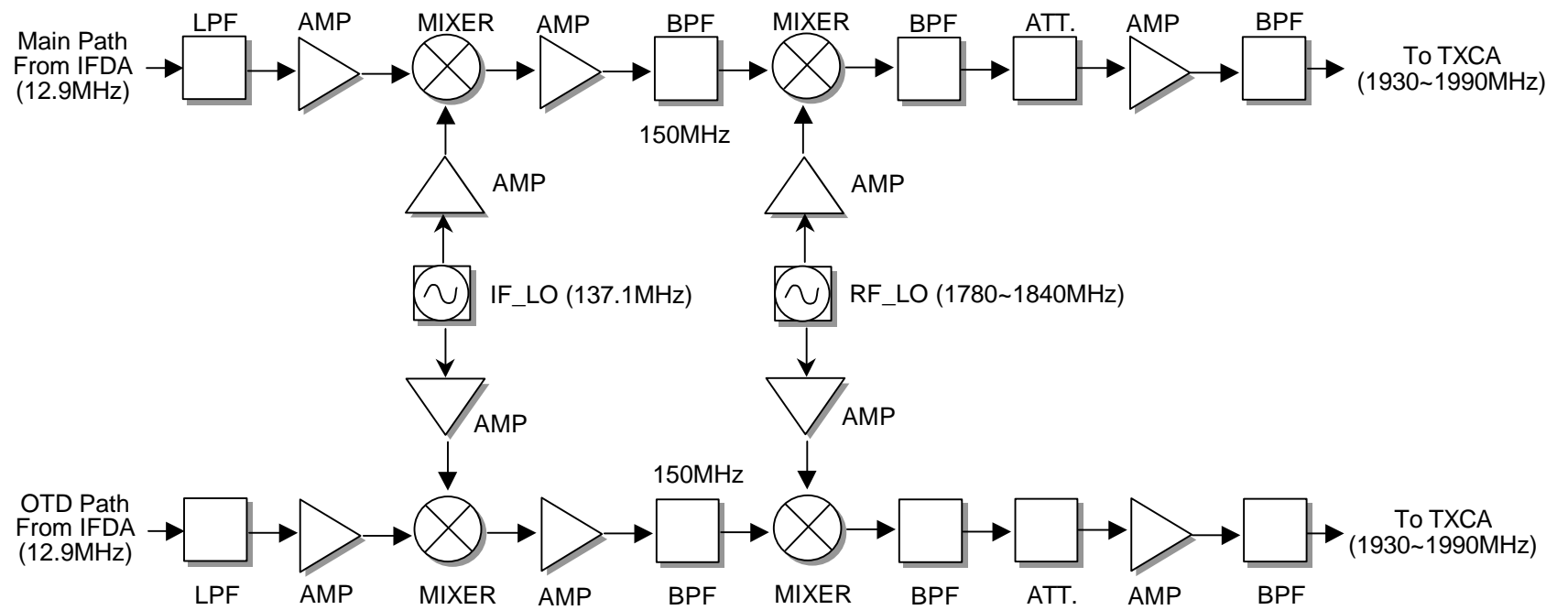
Power Module : +27V Input/+5.0V Output
Regulator1 : +5.0V Input/+3.6V Output
Regulator2 : +5.0V Input/+3.3V Output
Buffer : 74LVT16245
EconoRest : DS1834A(Power Monitor)
TM(Test Mobile)

Specification & Function

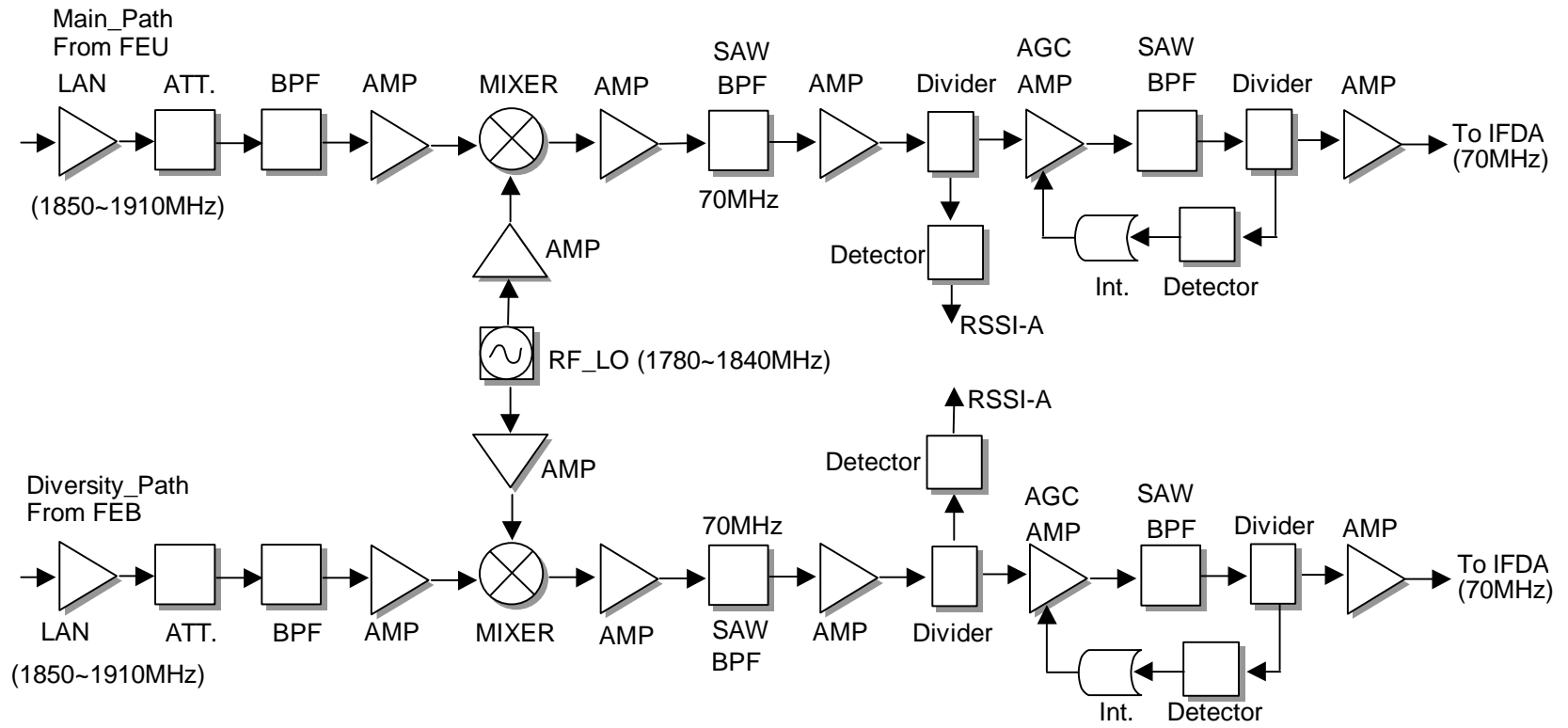
UART1: RS-232C, Async.HDLC, 57600bps, to/from BPDA

2 TRXA Block Diagram

1) Transmit Block Diagram



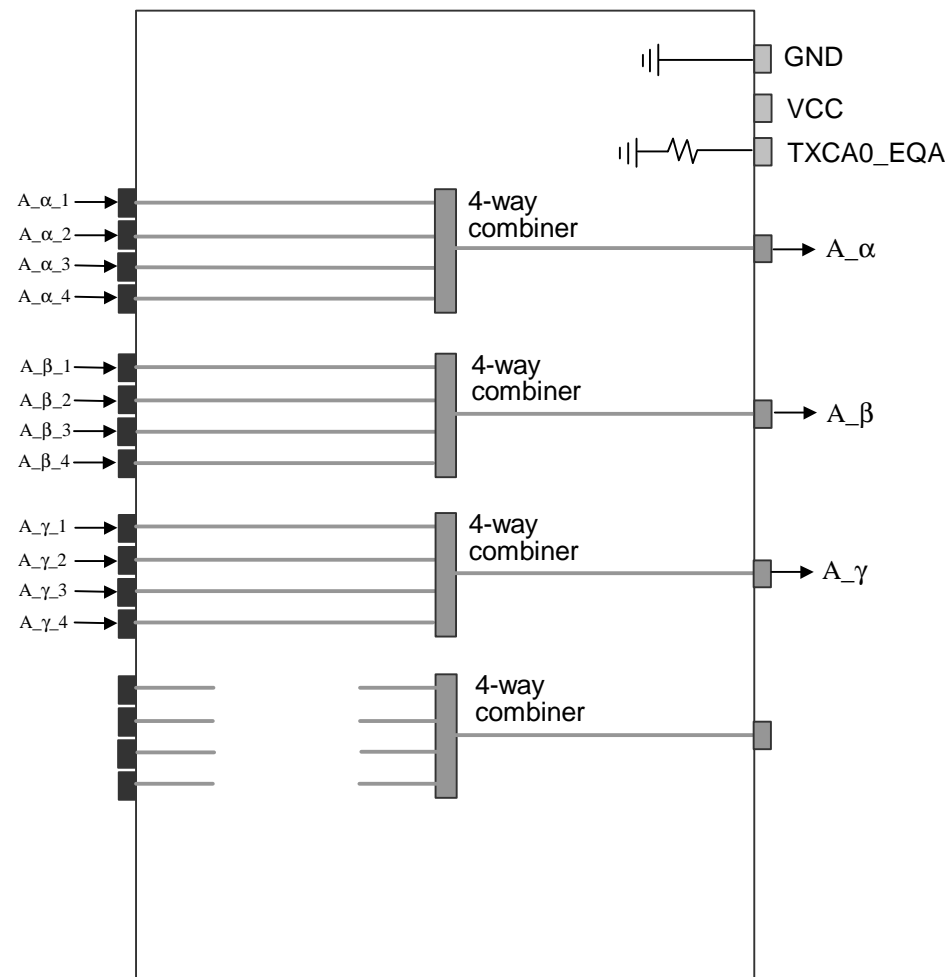
2) Receive Block Diagram



3 TXCA Block Diagram

TXCA (TransmitterCombiner Board Assembly)

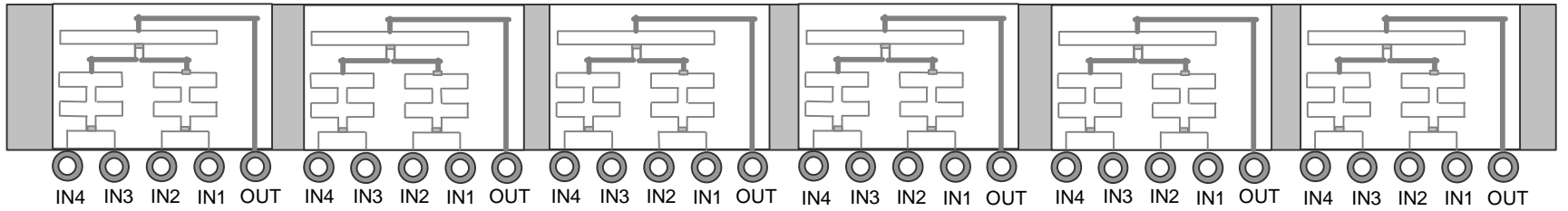
This Block Diagram describes the Transmitter Combiner Board Assembly (TXCA) used for PCS (1900MHz)



4 TXCU Block Diagram

TXCU (TransmitterCombiner Unit)

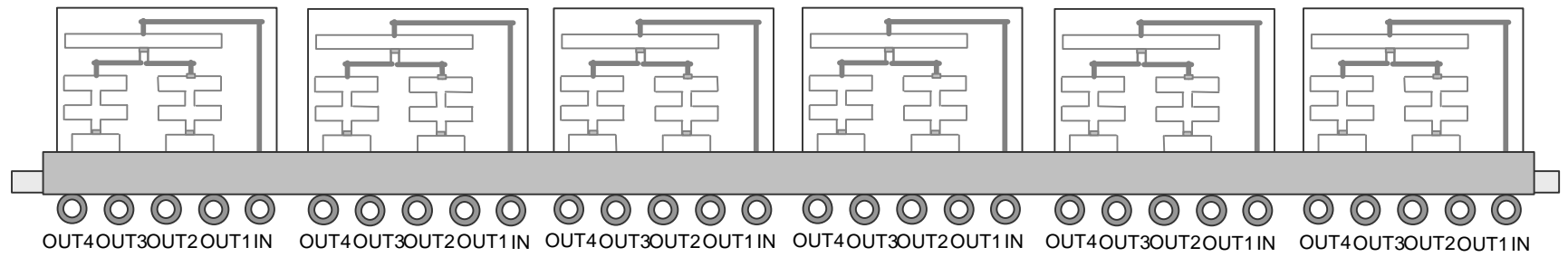
This Block Diagram describes the Transmitter Combiner Unit(TXCU) used for PCS (1900MHz)



5 RXDU Block Diagram

RXDU (Receiver Distribution Unit)

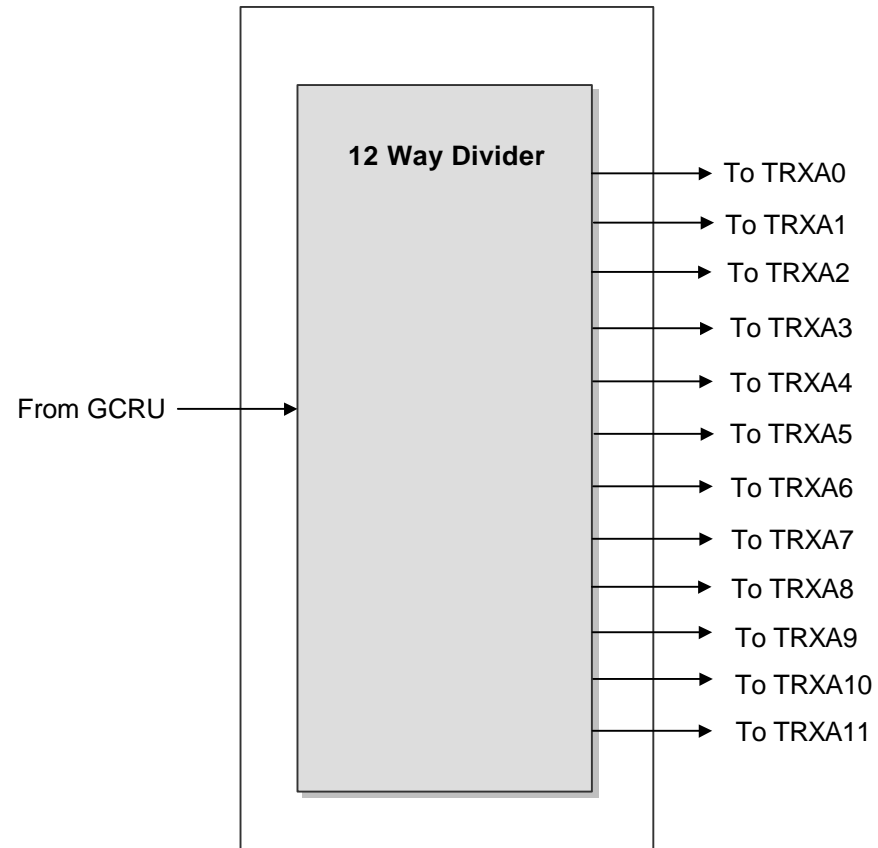
This Block Diagram describes the Receiver Distribution Unit(RXDU) circuit used for PCS (1900MHz)



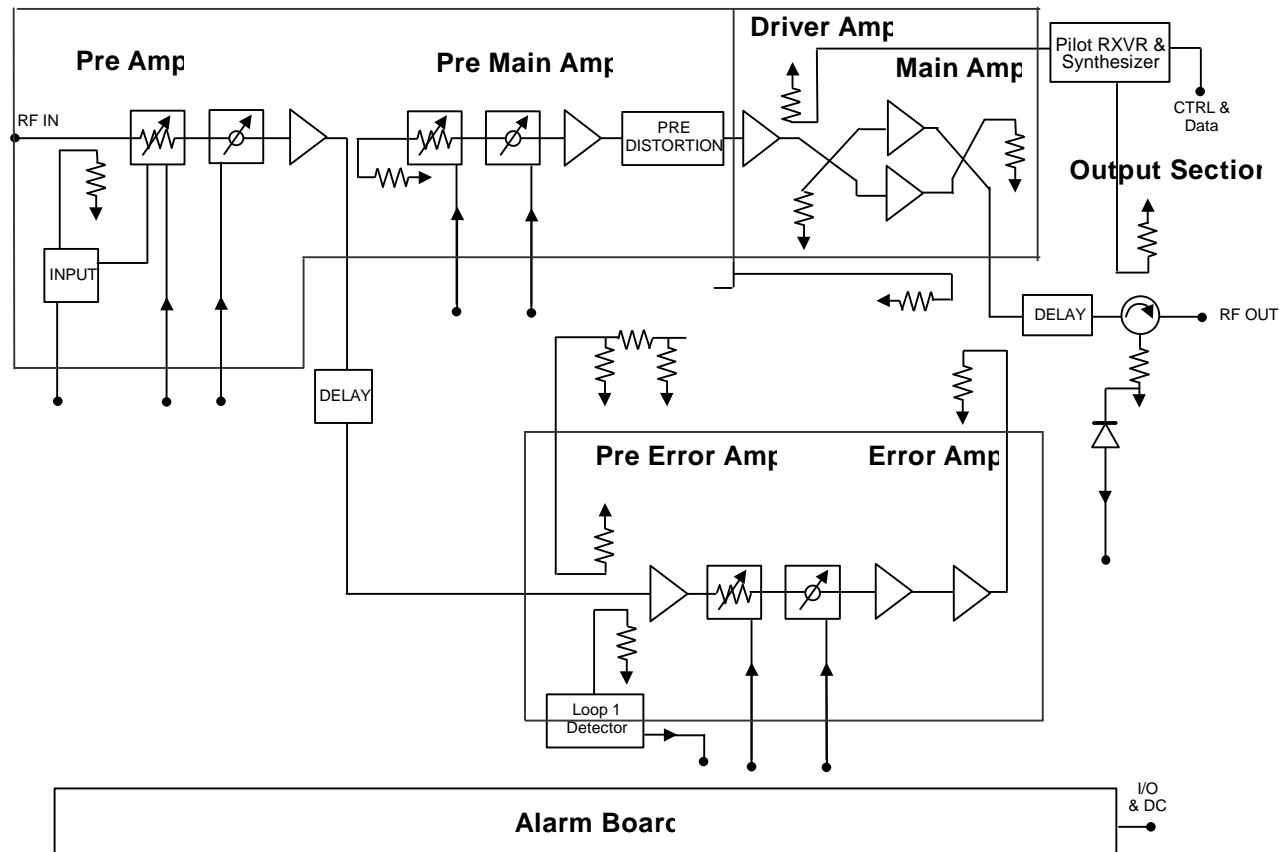
6 FRDP Block Diagram

FRDP-12 (Frequency Reference Distribution Panel)

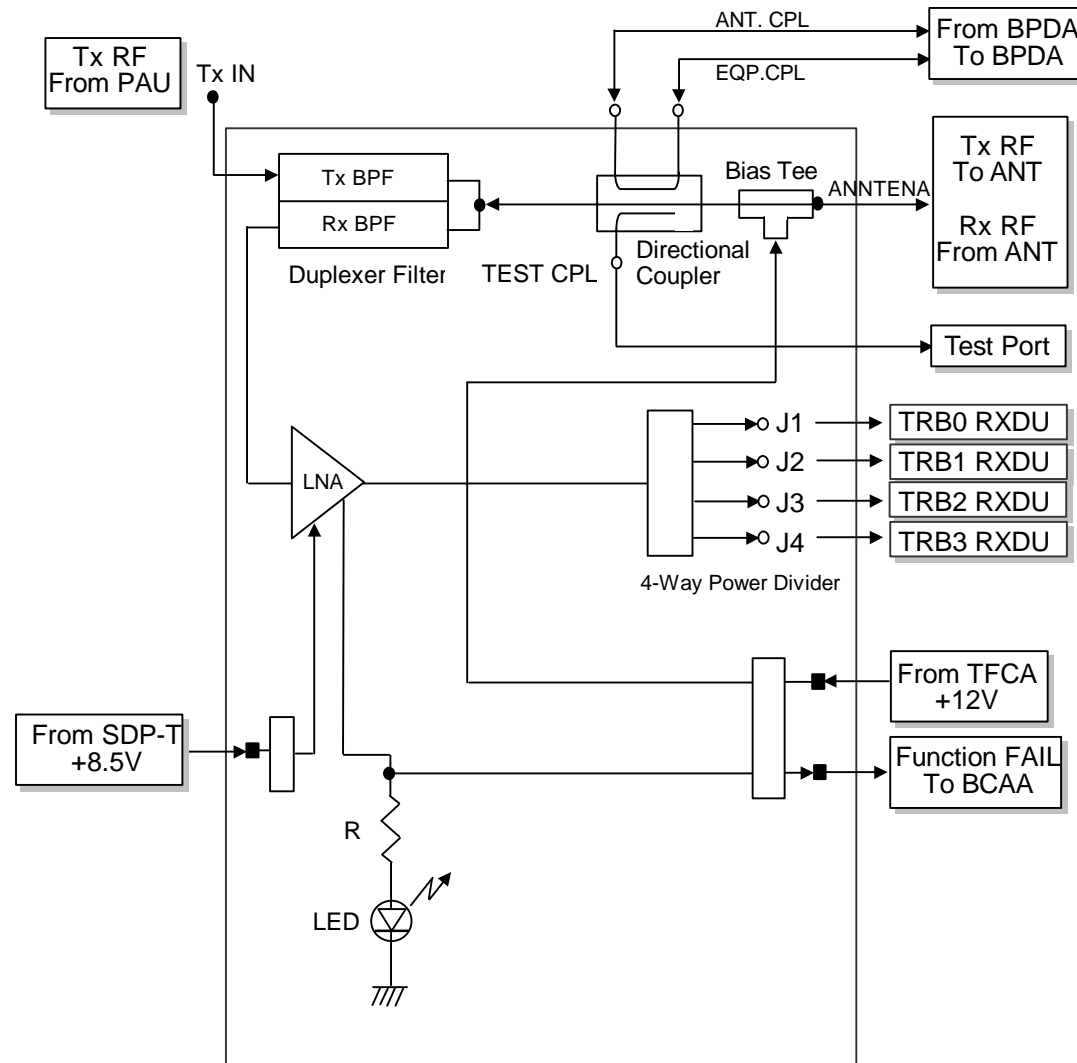
This Block Diagram describes the Frequency Reference Distribution Panel (FRDP-12) used for PCS (1900MHz)



7 PAU Block Diagram



8 FEU Block Diagram



Specification Function

Duplexer

- It separate Tx, Rx Signal and suppress spurious signal
- Bandwidth = 11MHz, IL(Tx)=0.6dB (Max), IG(Rx)=25 ±1.5 dB (Insertion Gain)

Directional Coupler

- It connect forward & reverse coupling signal to BPDA
- Coupling Value = 33 ±0.3 dB

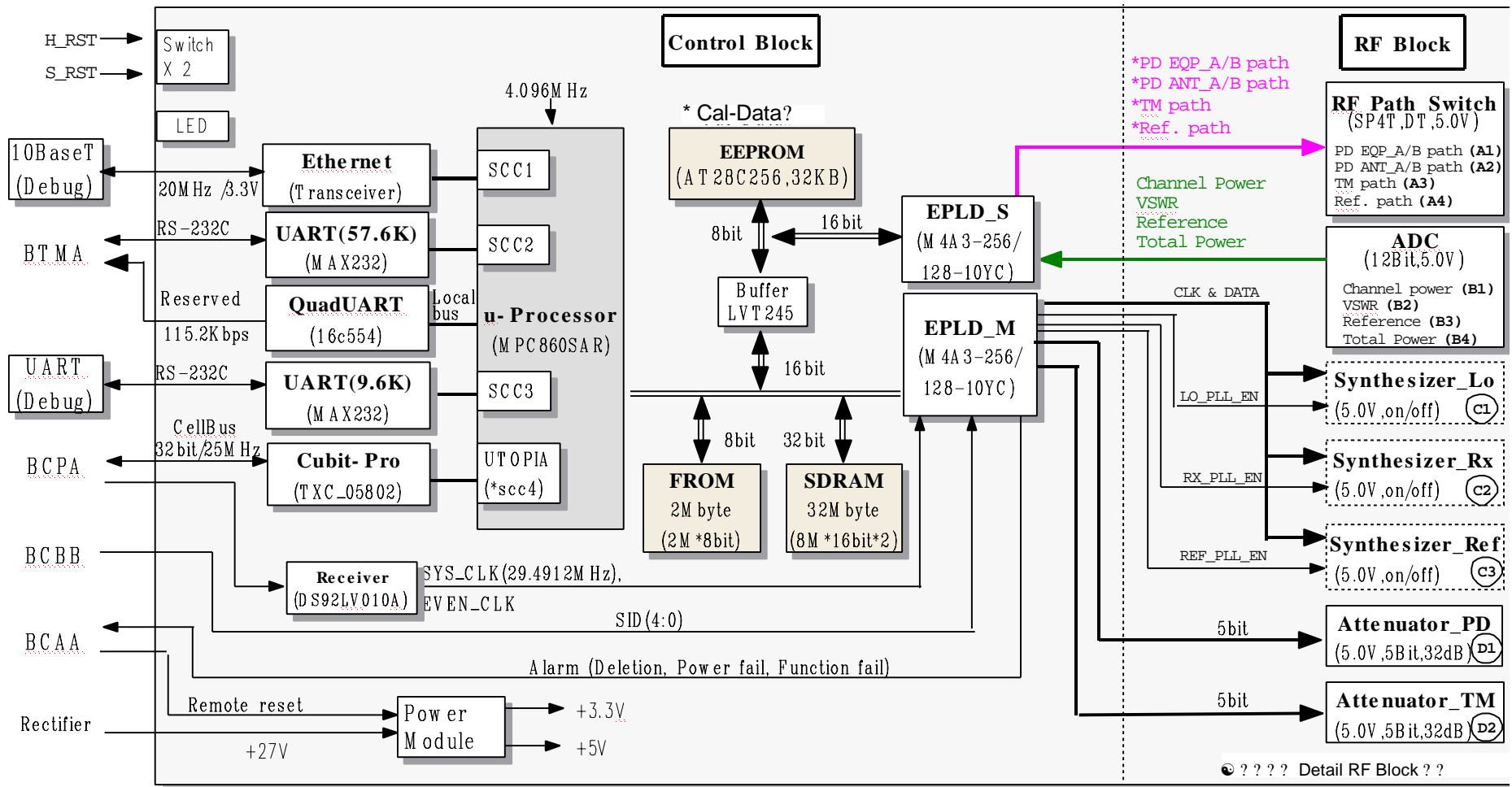
LNA(Low Noise Amplifier)

- Delivering to TRXA receiving part through RXDU by amplifying so that the received RF signal can have minimum additional noise components
- Gain = 38dB, NF = 1.2dB max

BPF(Band Pass Filter)

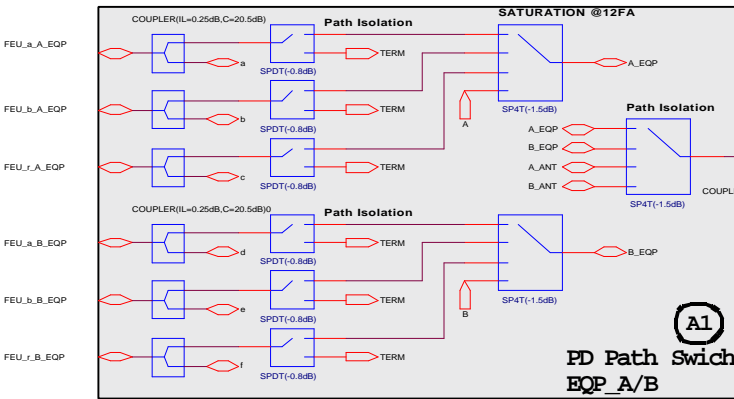
- Passing only required bands of RF signal to be input from Rx diversity antenna
- Output to suppress spurious wave not to affect adjacent frequencies through Tx antenna

9 BPDA Block Diagram

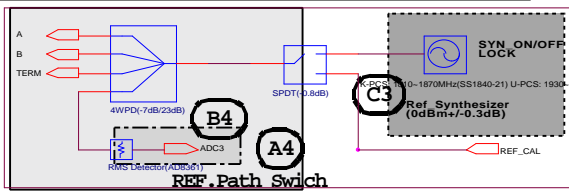
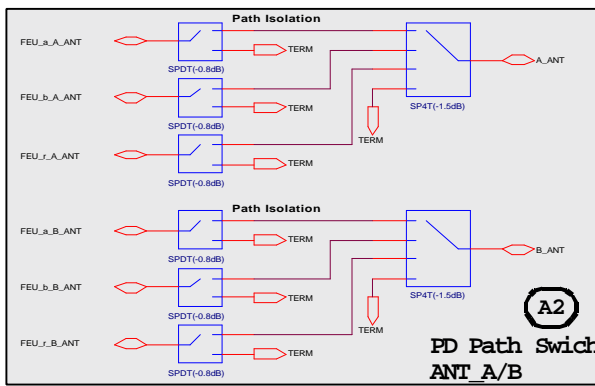


Block Diagram / ED 00

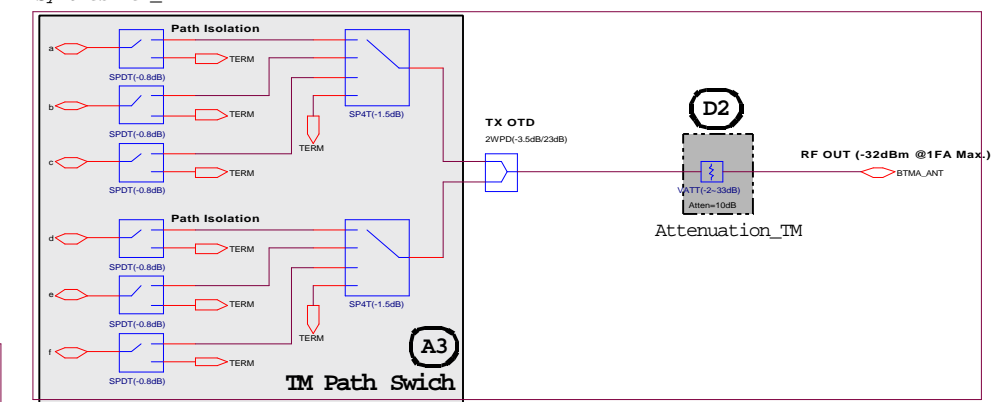
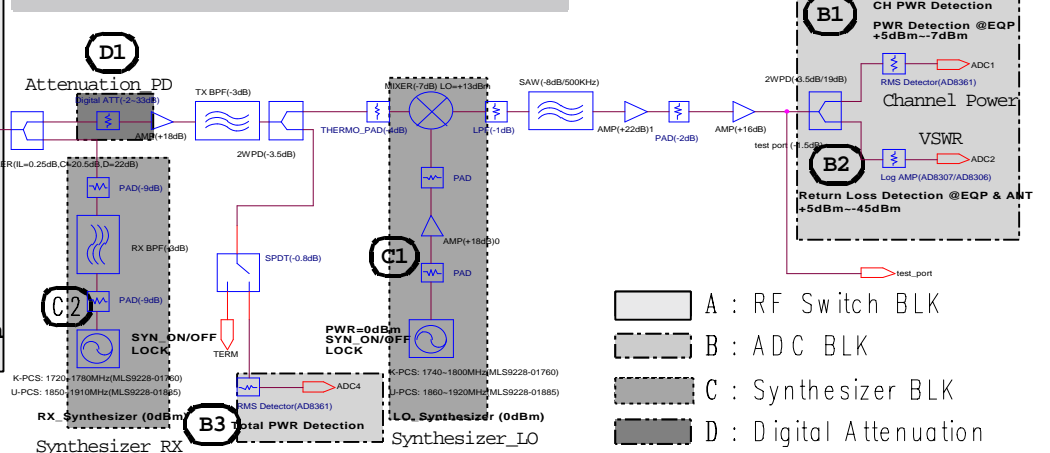
BTS TX OUT (K-PCS: 1810~1870MHz/ U-PCS: 1930~1990MHz)
 +43dBm-33dB-2dB=+8dBm (1FA_Max.)
 +8dBm-30dB=22dBm (1FA_Min.)
 -22dBm-20dB=-42dBm (1FA_Min. RL=20dB)



BTS RX IN (K-PCS: 1720~1780/ U-PCS: 1850~1910MHz)
 -47dBm-33dB-2dB+30dB=-52dBm (RX_Synthesizer)



BPDA-K / BPDA-U Detail RF Block



Synthesizer_REF

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File: BPDA-K/U Block Diagram		
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