

1. ( ) RF ( ) [1]

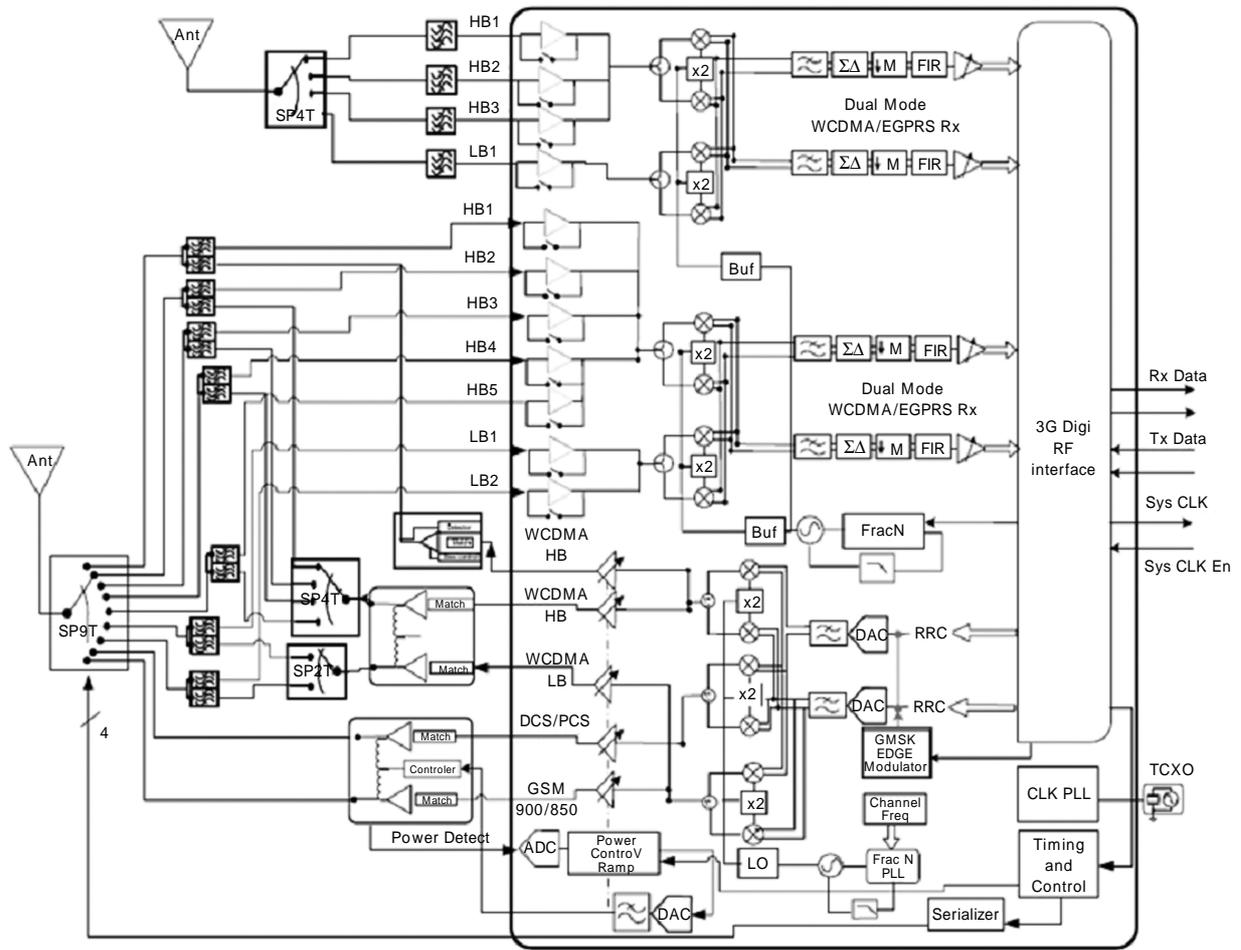
II. RF 가 RF

1 RF 가  
 RF 가  
 가  
 RF 가  
 가  
 RF 가  
 RF  
 [11].

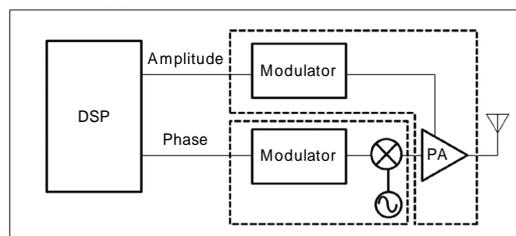
III.

가 2  
 가 (Mixing) RF  
 Factor) 가 가 (Q: Quality  
 (PA: Power Amplifier)  
 (PAPR)가  
 PAPR  
 가





3. [3]



4. [1]

2. (Polar)

Controlled Oscillator)  
Phase Locked Loop)

(PLL:

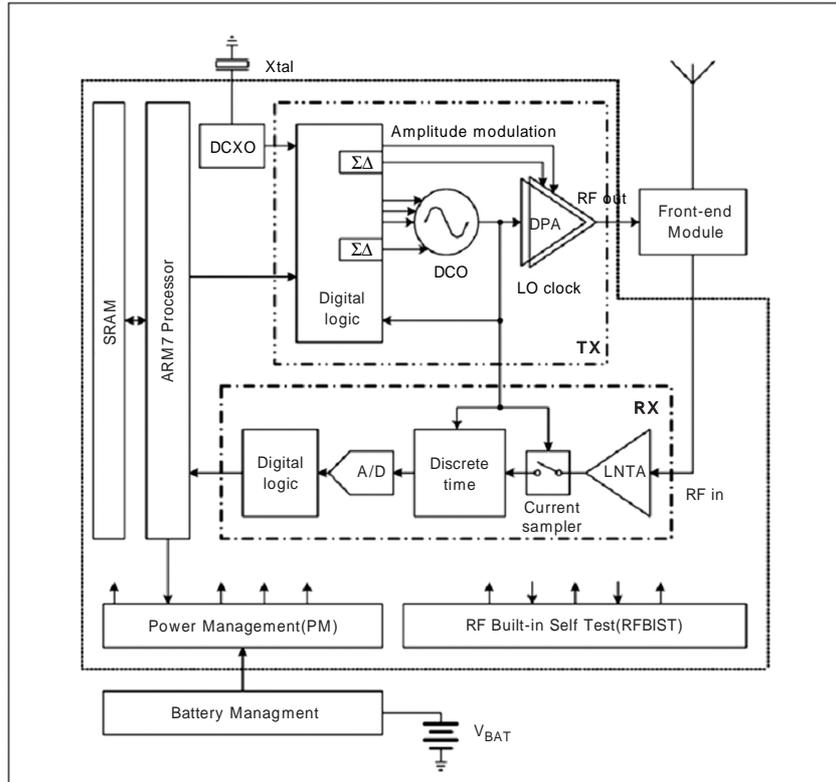
(Amplitude) (Phase)

[4] ~ [7].

(VCO: Voltage

4

[1].



5. TI

[9]

TI

(Envelope) 가  
[6].

(DSP)

(ET: Envelope Tracking),  
(Envelope Elimination and  
Restoration) [7],[8].

(VCO)  
Digitally Controlled Oscillator  
(DPA: Digitally  
Controlled Power Amplifier)

(DCO:

2.1. TI

가

TI(Texas

Instrument)  
[9].

5

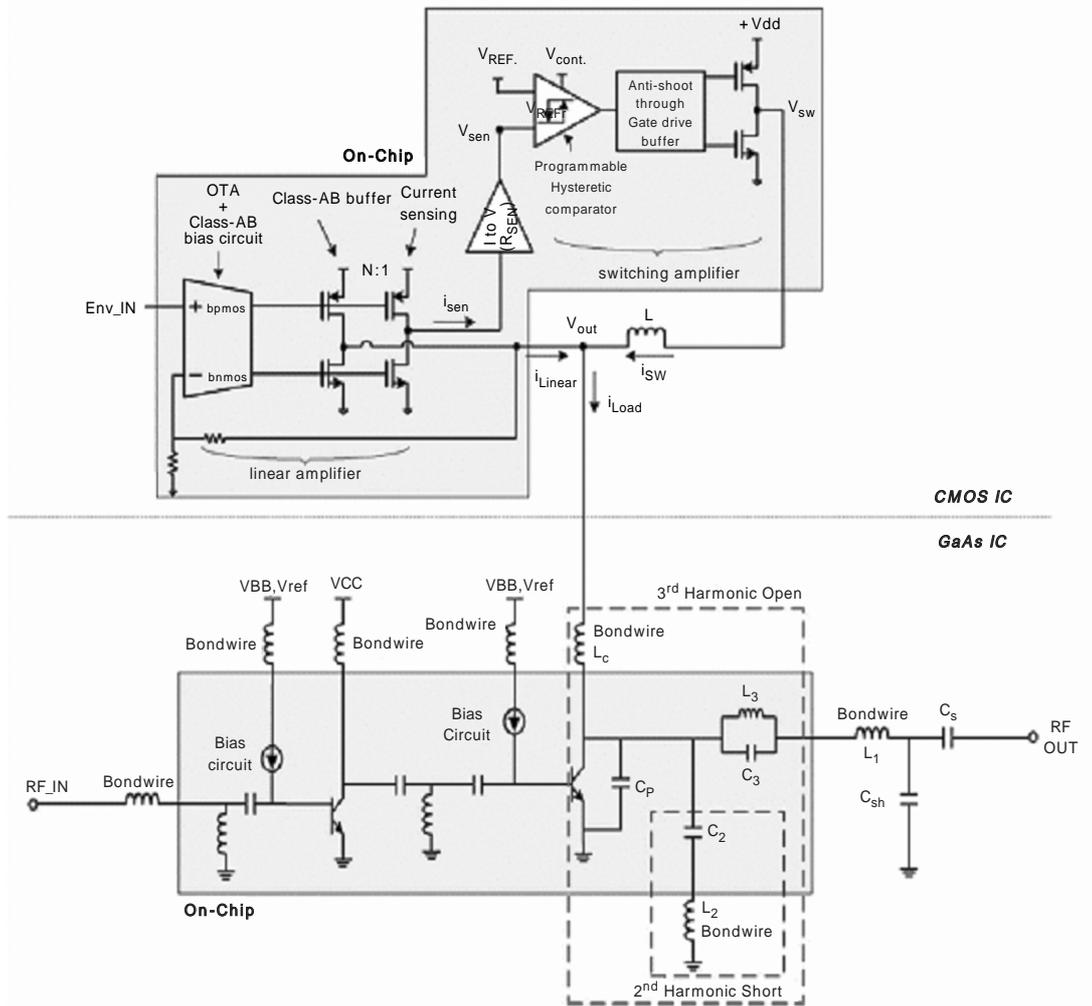
GSM /EDGE 가  
가

TI

[9]

가

가



6.

[7]

2.2.

CMOS

[7]

6

가 [7]

가  
가

가 PAPER

GaAs [7]  
가

CMOS

가

GaAs

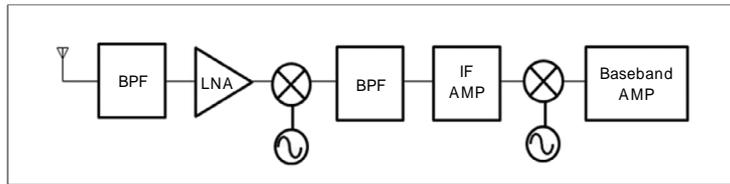
가

CMOS

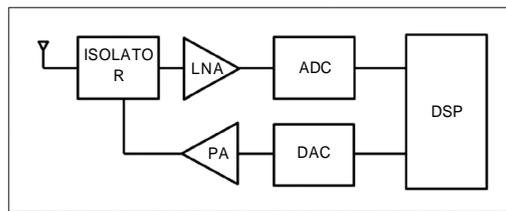
가

CMOS 가

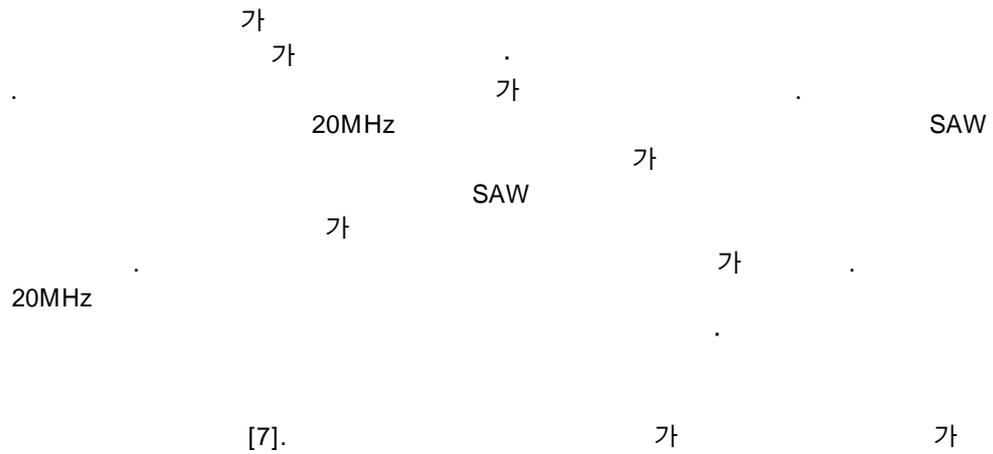
가



7.

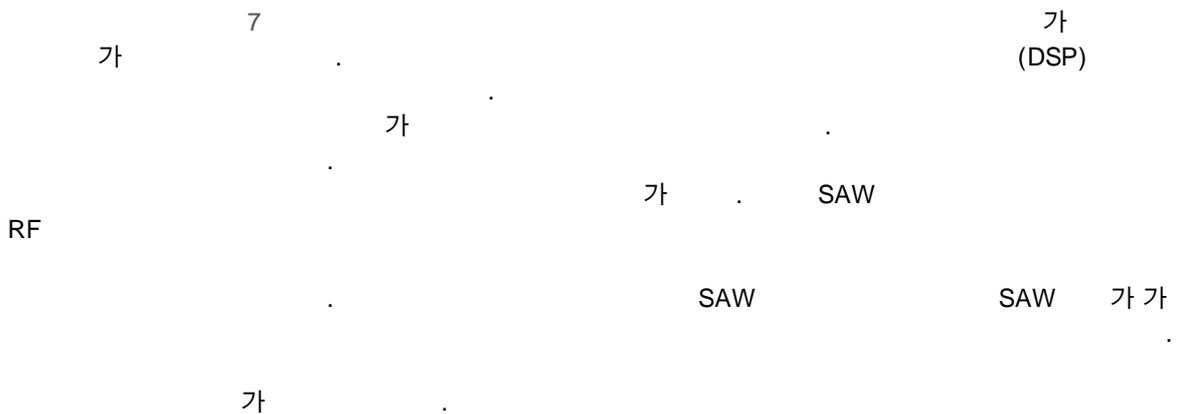


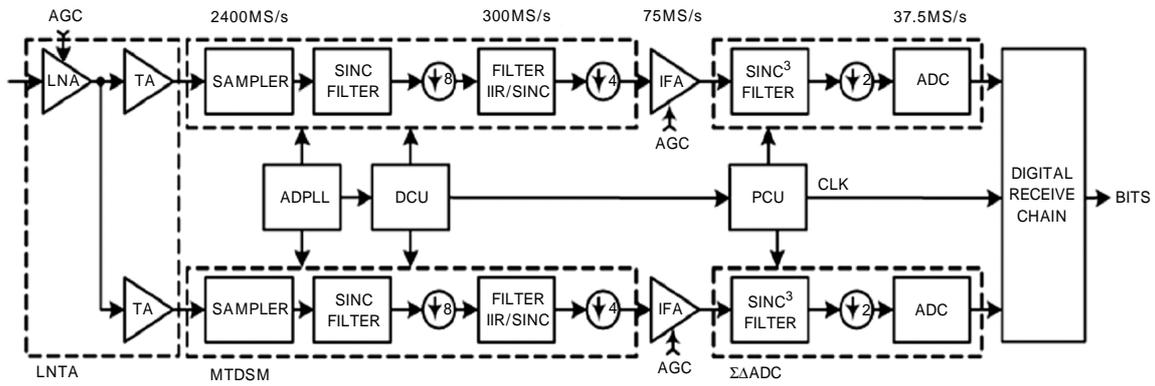
8. Mitola가 [10]



IV.

SDR(Software Defined Radio)





9. TI

[12]

1. Mitola가

1995 Mitola SDR(Software Defined Radio)  
 [10]. Mitola가  
 가 가 [11]. 5GHz  
 가 10GS/s  
 (ADC: Analog to Digital  
 Converter)  
 8 ).

RF

band(3~30MHz)  
 MHz

가

HF  
 [11].

2. TI

가  
 Mitola가

Mitola가 SDR  
 Instrument)

TI(Texas  
 9 [12].  
 가

RF

가  
 가  
 가

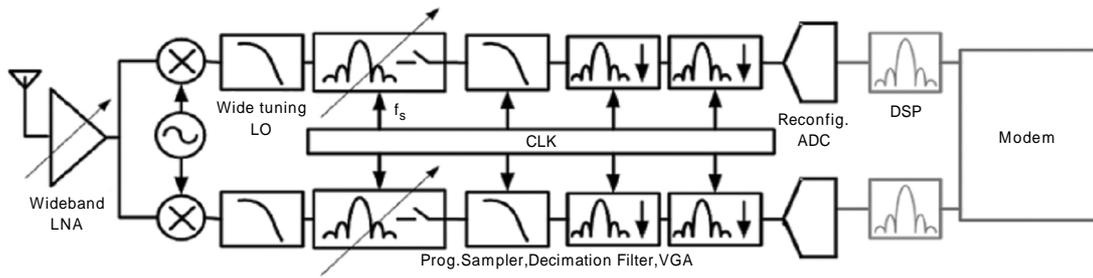
Mitola가

RF

가

가

가



10. UCLA

[11]

3. UCLA

SDR

가

RF

가

Mitola가

SDR

TI

10

[11].

가

가

SDR

TI

가

( 2.4GHz )

가

MHz~ GHz

(Mixer)  
(Wide tuning LO)

가 Mitola

가

가

가

SAW

가

가

2.4GHz

RF

가

가

RF

가

RF

RF 가 . . . . . 가 가

UCLA

가

RF , 20MHz

가

가

가 SAW

SAW 가 SAW

가

frequency) 가 가

가

가

가

[13],[14].

V.

가 가

[1] . . . . . , " RF , 23 , 3 , Jun. 2008, pp. 72-81.

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