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(54) T V V S B

VSB (VSB) , A/D SAW DTV  
, ,  
, 가  
가 가 가 , DTV  
.

3

, , VSB

1 DTV

2 DTV  
3 DTV

301 : 302 : SAW  
303 : A/D 304 :  
305 : 306 :  
307 : 308 :  
400 : 401 :  
402,502 : 403,503 : NCO  
500 : 501 :

TV(DTV) , VSB  
DTV (VSB)  
TV( , HDTV) (Grand Allian  
ce) VSB  
, VSB (base band) DC (pass band) 가  
1 TV , A/D (103), (104), (105),  
(108), (113), (107) VSB  
, VSB RF 가 RF VSB (IF; 44M  
Hz 43.75MHz가 )  
, IF (101)  
(Surface Acoustic Wave ; SAW) (10  
2) , 44MHz 6MHz 가 SAW  
(102) (101) 가 6MHz  
A/D (103) A/D (103) VCXO(111) VSB 2 S  
AW (102) SAW (102) A/D (103)  
(104) I,Q (105)  
(105) 가 (Numerically Controlled Oscillator ; NCO)(116  
) (104) I, Q (113)  
(113) I,Q (105) (Frequency  
offset) (Phase jitter) (105)  
(105) (113) (FPED)(114), (115), NCO(116)  
, (114) (105)  
(115) NCO(116)  
, VSB (115) RF KHz (frequency offset) (phase jitte  
r) (105) (acquisition)/ (tracking) 가  
, (105) I,Q 가 (106) (108)  
(107) (SNR) 가 (106) (107) I

(108) TV(DTV) ATSC(Advanced Television Systems Committee) VSB (108)

12) (108) (TED)(109), (110), (111) , VCXO(106) (109) (110) (110) (111) (111) DC / (109) VCXO(112) DC A/D (111) (103)

1 DTV VSB 가 VSB VSB (Application Specific Intergrated Circuit ; ASIC) 가 , VSB 가 A/D (209)

(203) (206) (204) (205) VSB (209) (204) (209) SAW (202) 25MHz (Resampler)(205) (205) (209) , 25MHz n (VSB n=2) (206) (207) (207) (209) (213) , (208) (213) (209) (207) 1 (211), NCO(212) (210) (207) LPF(211) NCO(212) (210) LPF(2) (213) (209) 가 가 (213) 2 VSB 가 2 VSB (213) (209) 가 (209)가 (209) (213) , DTV 2 (213) 가 , - (213) (209)가 (213) 가 가 가 (209) (209) DTV 가

DTV

DTV (VSB)

A/D I,Q I,Q 가

가 I,Q (SNR)가

가

3 TV (301), SAW (302), A/D (303), (304), (305), (306), (307), (308)가 (307), (500)가 (305) (400)가

2

(308), A/D (303), (304), (305), (306), (307), (400), VSB VSB

A/D (303) SAW (302) ( , 25MHz) (500) (307)

07) A/D (303) (304) I,Q (305) (306) (307) (400) 가 (306) (500) (306)

(304) I, Q I,Q (400) (307)

(400) (305)

(305) (306)

(400) (401) (FPED)(401), (402), NCO(403)

(401) (305) (402) NCO(403) (402)

401) NCO(403) (305) NCO(403) (402)

(306) (307) 가 (307)

SNR 가 (500) (307)

(307) I

(501), (500) (307) (502), NCO(503)

(501) (307) (502) NCO(503)

(502) NCO(503)

(306)

DTV VSB 가 , , - .

가 , 가 ,

가 ,

가 , VSB ,

가 , (robustness) , DTV

가 , 가

가 , 가

가 ,

가 ,

(57)

1. (VSB)

A/D ; I,Q 가

I,Q ;

I,Q ;

2 (SNR)가 가

2 ;

TV VSB .

1





