

AG1 CIRCUIT FUNCTION**POWER SUPPLY UNIT**

D3	1SS349	diode	DC-DC
U3	XC6371A300	IC(DC-DC)	DC-DC
U2	TK11227	IC (regulator)	power supply regulator(2.7V)
U5	XC61CN11	IC(detect)	LED driver
LED1	TLSU1008	LED	power supply indicator(LOW) & unavailable indicator

AUDIO UNIT

D2	1SS362	diode	modulation AF signal level limit
Q5	2SK879	transistor	AF mute
Q4	2SA1832	transistor	AF mute drive
U1	TK10690	IC(compander)	1/2 log compander
U4	TK17030	IC(opeamp)	pre-emphasis

RF UNIT

D1	KV1832E	diode	frequency adjustment & modulat
Q2	FH102	transistor	OSC & buffer
Q3	2SC5231	transistor	output power amplifier

VOLTAGE AND CURRENT OF FINAL STAGE

collector voltage $V_c=2.7V$
 emitter voltage $V_e=0.38V$
 current $I_c=3.8mA$

Transmitter RF Output Power Limitation

The power supply voltages to the final stage circuit is stable even though the main power supply voltage changes.

The bias resistor for base and the resistor limiting self-bias of emitter limit the current to the final stage transistor. Then the output power is limited.

AF1/AG1

POWER SUPPLY UNIT

D3	1SS349	diode	DC-DC
U3	XC6371A300	IC(DC-DC)	DC-DC UP Converter (1.5V - 3V)
U2	TK11227	IC (regulator)	power supply regulator(2.7V)
U5	XC61CN11	IC(detect)	LED driver
LED1	TLSU1008	LED	power supply indicator(LOW) & unavailable indicator

AUDIO UNIT

Q5	2SK662	transistor	AF Buuffer
Q4	2SA1832	transistor	AF pre-amp
Q1	2SC4116	transistor	AF pre-amp
U1	TK10690	IC(compander)	1/2 log compander
U4	TK17030	IC(opeamp)	pre-emphasis
D2	1SS362	diode	modulation AF signal level limit

RF UNIT

D1	KV1832E	diode	frequency adjustment & modulat
Q2	FH102	transistor	OSC & buffer
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VOLTAGE AND CURRENT OF FINAL STAGE

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