

UTC TA7640AP LINEAR INTEGRATED CIRCUIT

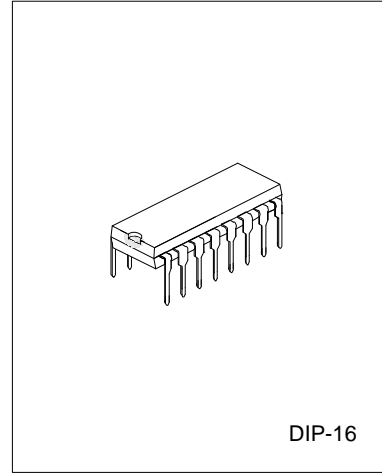
AM/FM IF PROCESSOR

DESCRIPTION

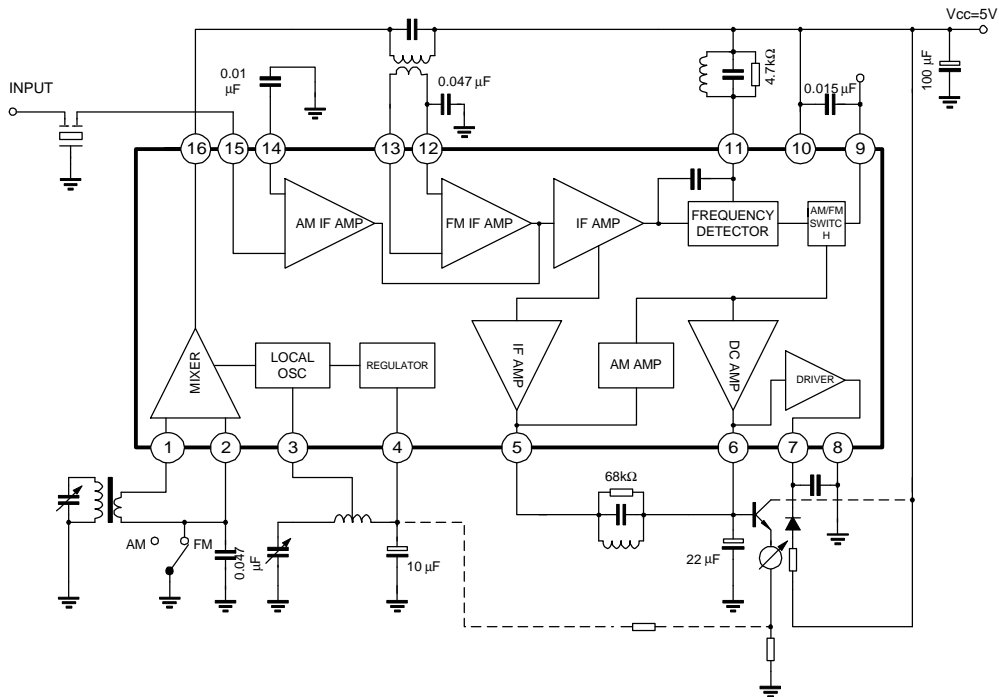
The UTC TA7640AP Is A Monolithic Integrated Circuit Designed For The Radios Cassette Tape Recorder.

FEATURES

- *Low Operating Current
- *Low External Component
- *Internal AM/FM Switch
- *Wide Operating Voltage : $V_{CC}=3.8V$



BLOCK DIAGRAM



UTC TA7640AP LINEAR INTEGRATED CIRCUIT

ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

PARAMETER	SYMBOL	VALUE	UNIT
Voltage	VCC	8	V
Led Driving Current	ILAMP	10	mA
Power Dissipation	PD	750	mW
Operating Temperature	TOPR	-25 ~ +75	°C
Storage Temperature	TSTG	-55 ~ +150	°C

NOTE :Ta>25°C,6mw/°C

DC ELECTRICAL CHARACTERISTICS(VCC=5V)

PARAMETER	SYMBOL	TYP		UNIT
		AM	FM	
Pin 1 AM Mixer Input	V1	1.5	0	V
Pin 2 AM Mixer Bypass	V2	1.5	0	V
Pin 3 AM Local OSC	V3	2.3	2.3	V
Pin 4 Voltage Regulator	V4	2.3	2.3	V
Pin 5 AM IF Out	V5	1	0.9	V
Pin 6 Level Meter Out	V6	1	0.9	V
Pin 7 Led Driver Output	V7			V
Pin 8 GND	V8	0	0	V
Pin 9 Dectector	V9	1.4	1.5	V
Pin 10 Vcc	V10	5	5	V
Pin 11 FM Decter Out	V11	5	5	V
Pin 12 AM IF Bypass	V12	1.5	1.5	V
Pin 13 AM IF Input	V13	1.5	1.5	V
Pin 14 AM IFBypass	V14	1.5	1.5	V
Pin 15 FM IF Input	V15	1.5	1.5	V
Pin 16 AM Mixer Output	V16	5	5	V

AC ELECTRICAL CHARACTERISTICS(Ta=25°C,Vcc=5V,FM:f=10.7MHz, Δf=22.5KHz, FM=400Hz AM; f=1MHz, Mod=30%,FM=400Hz)

PARAMETER	SYMBOL	CHART	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Supply Current	ICC(1)	1	FM VIN=0		10	15	mA
	ICC(2)		AM VIN=0		7	10	
FM							
Input Limiting Voltage	VIN(lim)	1	-3dB		40	46	dBμ
Detector Output	VOD	1	VIN=66dBμ	57	85	114	mVrms
Signal Noise Ratio	S/N	1	VIN=80dBμ		65		dB
Total Harmonic Distortion	THD	1	VIN=80dBμ		0.05		%
Am Rejection	AMR	1	VIN=80dBμ		38		dBμ

UTC

UNISONIC TECHNOLOGIES CO., LTD.

2

QW-R110-007,A

UTC TA7640AP LINEAR INTEGRATED CIRCUIT

PARAMETER	SYMBOL	CHART	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Level Meter Driving Voltage	VM	1	VIN=100dBμ	1.6	1.75	1.9	V
Led Driving Sensitivity	VL	1	IL=1mA		46	52	dB
AM							
Gain	GV	1	VIN=26dBμ	20	30	60	mVrms
Detector Output Voltage	VOD	1	VIN=60dBμ	65	95	125	mVrms
Signal To Noise Ratio	S/N	1	VIN=60dBμ		47		dB
Total Harmonic Distortion	THD	1	VIN=60dBμ		1		%
Signal Meter Output	VM	1	VIN=100dBμ	1.6	1.75	1.9	V
Level Meter Driving Voltage	VL	1	IL=1mA		32		dBμ
Oscillation Stop Voltage	Vstop	1	RDUMP=∞		1.5		V
Pin 5 Output Impedance	R09		f=1KHZ		3		KΩ

TEST CIRCUIT

