
MARKING DIAGRAM

Features

Switch Type	DPDT (2x)
Input Type	Data / Audio Switch
Input Signal Range	0 to V_{CC}
V_{CC}	1.65 to 4.45 V
R_{ON}	2.5 Ω at 2.7 V
R_{FLAT}	0.8 Ω at 2.7 V
ESD	8 kV HBM
Bandwidth	245 MHz
C_{ON} at 240 MHz	16 pF
C_{OFF} at 240 MHz	6.0 pF
Features	Low I_{CTT}
Package	16-Lead UMLP 1.80 x 2.60 x 0.55 mm, 0.40 mm pitch
Top Mark	KA
Ordering Information	FSA2466UMX

Applications

- MP3 Portable Media Players
- Cellular Phones, Smartphones

is lower than the V_{CC} level, does not flow (I_{CTT})

FSA2466



Figure 1. Typical Mobile Phone Application

ORDERING INFORMATION

Part Number	Top Mark	Operating Temperature Range	Package	Shipping†
FSA2466UMX	KA	-40 to 85°C	16-Lead, Quad, Ultrathin Molded Leadless Package (UMLP), 1.8 x 2.6 mm	5000 / Tape & Reel

†For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

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Pin Configuration

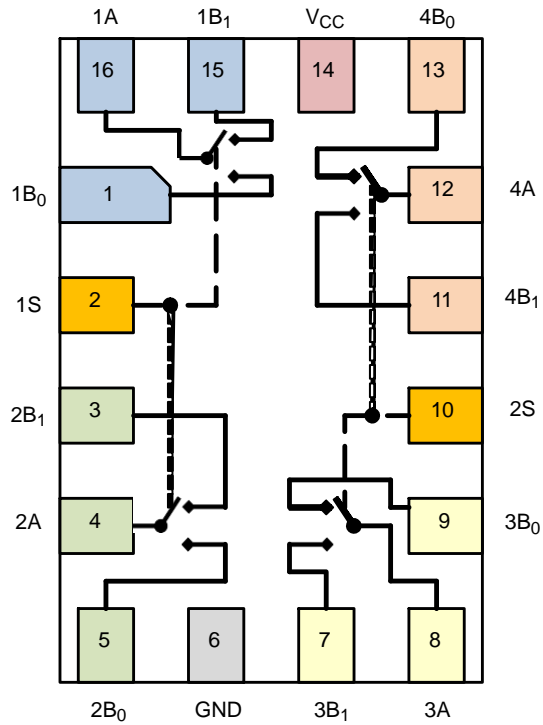


Figure 2. FSA2466UMX (Top View)

PIN DESCRIPTIONS

Pin #	Name	Type	Description					
1	1B ₀	I/O	Data / Audio Port					
2	1S	Input	Control Input for Data & Common Ports 1 & 2	<table border="1"> <tr> <td>0</td> <td>1B₀ = 1A & 2B₀ = 2A</td> </tr> <tr> <td>1</td> <td>1B₁ = 1A & 2B₁ = 2A</td> </tr> </table>	0	1B ₀ = 1A & 2B ₀ = 2A	1	1B ₁ = 1A & 2B ₁ = 2A
0	1B ₀ = 1A & 2B ₀ = 2A							
1	1B ₁ = 1A & 2B ₁ = 2A							
3	2B ₁	I/O	Data / Audio Port					
4	2A	I/O						

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ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Min	Max	Unit	
V _{CC}	Supply Voltage	-0.50	5.25	V	
V _S	Switch Voltage	-0.5	V _{CC} + 0.3	V	
V _{IN}	Input Voltage	-0.5	5.0	V	
I _{IK}	Input Diode Current	-50		mA	
I _{SW}	Switch Current		350	mA	
I _{SWPEAK}	Peak Switch Current (Pulsed at 1 ms Duration, <10% Duty Cycle)		500	mA	
T _{STG}	Storage Temperature Range	-65	+150	°C	
T _J	Junction Temperature		+150	°C	
T _L	Lead Temperature, Soldering 10 seconds		+260	°C	
ESD	Human Body Model, JESD22-A114	I/O to GND		8	kV
		Power to GND		8	
		All Other Pins		8	

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DC ELECTRICAL CHARACTERISTICS

(Typical values are at $T_A = 25^\circ\text{C}$ unless otherwise specified.)

Symbol	Parameter	Condition	V_{CC} (V)	$T_A = +25^\circ\text{C}$			$T_A = -40$ to $+85^\circ\text{C}$		Unit
				Min.	Typ.	Max.	Min.	Max.	
V_{IH}	Input Voltage High		4.30				1.4		V
			2.70 to 3.60				1.3		
			2.30 to 2.70				1.1		
			1.65 to 1.95				0.9		
V_{IL}	Input Voltage Low		4.30					0.7	V
			2.70 to 3.60					0.5	
			2.30 to 2.70					0.4	
			1.65 to 1.95					0.4	
I_{IN}	Control Input Leakage	$V_{IN} = 0\text{ V to }V_{CC}$	1.65 to 4.30				-0.5	0.5	μA
$I_{NO(OFF)}$ $I_{NC(OFF)}$	Off Leakage Current of Port nB0 and nB1	$nA=0.3\text{ V, }V_{CC}=0.3\text{V}$	1.95 to 4.30	-10		10	-50	50	nA
		$nB0$ or $nB1=0.3\text{ V, }V_{CC}=0.3\text{V}$ or Floating							
$I_{A(ON)}$	On Leakage Current of Port A	$nA = 0.3\text{ V, }V_{CC}=0.3\text{V}$	1.95 to 4.30	-10		10	-50	50	nA
		$nB0$ or $nB1 = 0.3\text{ V, }V_{CC}=0.3\text{V}$ or Floating							
R_{ON}	Switch On Resistance (Note 3)	$I_{OUT}=100\text{ mA}$	4.30						
		$I_{OUT}=100\text{ mA, }nB0$ or $nB1$ CC	2.30						

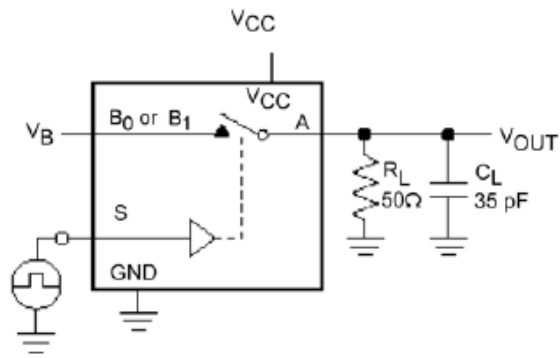
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AC ELECTRICAL CHARACTERISTICS

(Typical values are are at $T_A = 25^\circ\text{C}$ unless otherwise specified.)

Symbol	Parameter	Condition	V_{CC}	$T_A = +25^\circ\text{C}$			$T_A = -40 \text{ to } +85^\circ\text{C}$		Unit	Figure
				Min.	Typ.	Max.	Min.	Max.		
t_{ON}	Turn-On Time	nB_0 or $nB_1=1.5 \text{ V}$ $R_L=50 \Omega$, $C_L=35 \text{ pF}$	3.6 to 4.3			50		60	ns	Figure 3
			2.7 to 3.6			65		75		
			2.3 to 2.7			80		90		
t_{OFF}	Turn-Off Time	nB_0 or $nB_1=1.5 \text{ V}$ $R_L=50 \Omega$, $C_L=35 \text{ pF}$	3.6 to 4.3			32		40	ns	Figure 3
			2.7 to 3.6			42		50		
			2.3 to 2.7					Ω ,		

AC Loadings and Waveforms



C_L includes Fixture and Stray Capacitance

Figure 3. Turn-On / Turn-Off Timing



Figure 4. Break-Before-Make Timing

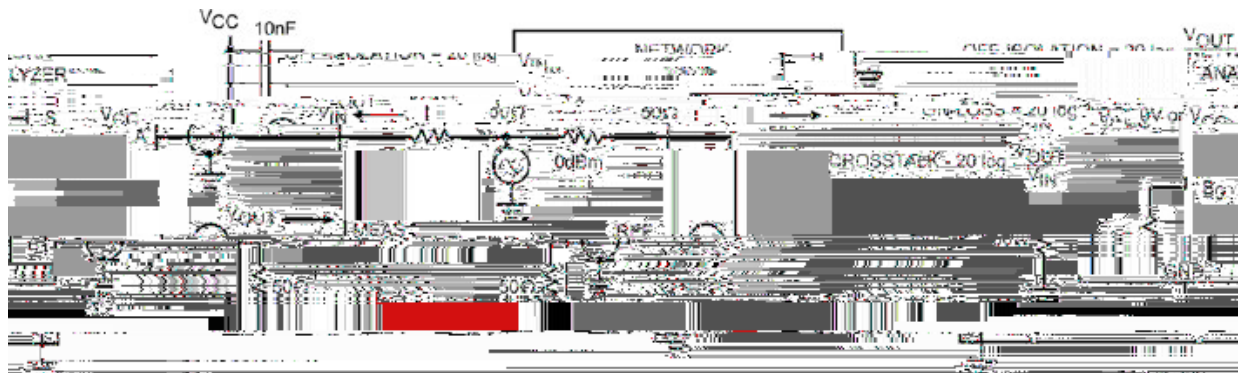


Figure 5. Off Isolation and Crosstalk

AC Loadings and Waveforms (Continued)

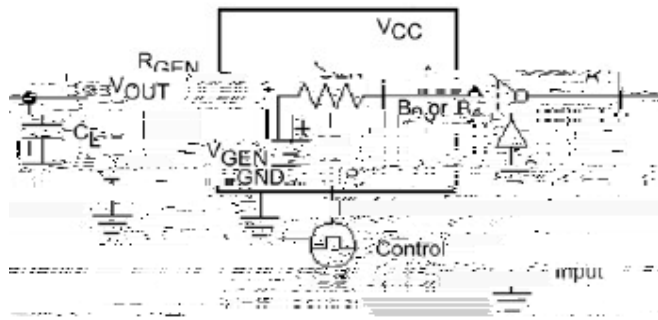


Figure 6. Charge Injection

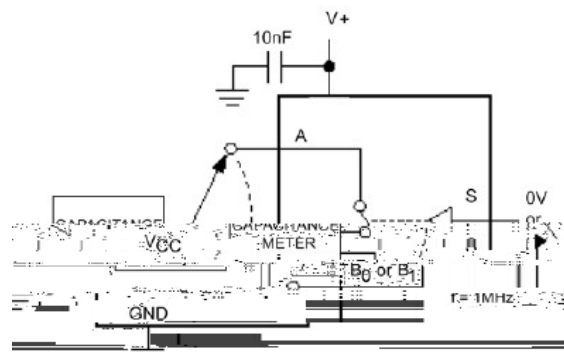


Figure 7. On / Off Capacitance Measurement Setup



Figure 8. Bandwidth

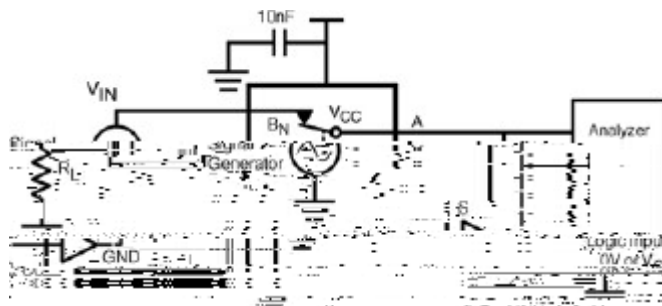


Figure 9. Harmonic Distortion



UQFN16 1.80x2.60x0.50, 0.40P
CASE 523BF
ISSUE A

DATE 06 MAY 2024

L4 0.45 0.50 $\frac{\varnothing.45}{0.55}$

TOLERANCES FOR FEATURE C/D

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