Mux

PARAMETER		TEST CONDITIONS			MIN	TYP	MAX	UNIT
ANALOG SWITCH								
r_{PEAK}	Peak ON resistance	0 ≤ (V_{NC} or V_{NO}) ≤ V_{CC}, V_{CC} = 2.7 V, I_{COM} = –100 mA, Switch ON, See Figure 10		T_A = 25°C		0.5	0.65	Ω
				–40°C ≤ T_A ≤ 85°C			0.75	
r_{ON}	ON-state resistance	V_{NC} or V_{NO} = 2 V, V_{CC} = 2.7 V, I_{COM} = –100 mA, Switch ON, See Figure 10		T_A = 25°C		0.45	0.6	Ω
				–40°C ≤ T_A ≤ 85°C			0.65	
Δr_{ON}	ON-state resistance match between channels	V_{NC} or V_{NO} = 2 V or 0.8 V, V_{CC} = 2.7 V, I_{COM} = –100 mA, Switch ON, See Figure 10		T_A = 25°C		0.05	0.07	Ω
				–40°C ≤ T_A ≤ 85°C			0.08	
$r_{ON(FLAT)}$	ON-state resistance flatness	V_{CC} = 2.7 V, I_{COM} = –100 mA, Switch ON, See Figure 10	0 ≤ (V_{NC} or V_{NO}) ≤ V_{CC}			0.025		Ω
			V_{NC} or V_{NO} = 2 V or 0.8 V	T_A = 25°C		0.01	0.04	
				–40°C ≤ T_A ≤ 85°C			0.1	
$I_{NC(OFF)}$, $I_{NO(OFF)}$	NC and NO OFF leakage current	V_{NC} or V_{NO} = 1 V and V_{COM} = 3 V, or V_{NC} or V_{NO} = 3 V and V_{COM} = 1 V; V_{CC} = 3.6 V, Switch OFF, See Figure 11		T_A = 25°C	–50		50	nA
				–40°C ≤ T_A ≤ 85°C	–250		250	
$I_{NC(ON)}$, $I_{NO(ON)}$	NC and NO ON leakage current	V_{NC} or V_{NO} = 1 V or 3 V, V_{COM} = Open, V_{CC} = 3.6 V, Switch ON, See Figure 12		T_A = 25°C	–50		50	nA
				–40°C ≤ T_A ≤ 85°C	–400		400	
$I_{COM(ON)}$	COM ON leakage current	V_{NC} or V_{NO} = Open, V_{COM} = 1 V or 3 V, V_{CC} = 3.6 V, Switch ON, See Figure 12		T_A = 25°C	–50		50	nA
				–40°C ≤ T_A ≤ 85°C	–400		400	
DIGITAL CONTROL INPUTS (IN1, IN2)[1]								
V_{IH}	Input logic high	2.7 V ≤ V_{CC} ≤ 3.6 V, –40°C ≤ T_A ≤ 85°C			1.4			V
V_{IL}	Input logic low	2.7 V ≤ V_{CC} ≤ 3.6 V, –40°C ≤ T_A ≤ 85°C					0.5	V
I_{IH}, I_{IL}	Input leakage current	V_{IN} = 3.6 V or GND, V_{CC} = 3.6 V		T_A = 25°C	–50	5	50	nA
				–40°C ≤ T_A ≤ 85°C	–150		150	
DYNAMIC								
t_{ON}	Turnon time	V_{COM} = V_{CC}, R_L = 50 Ω, C_L = 35 pF, See Figure 14	V_{CC} = 3 V, T_A = 25°C			20	35	ns
			2.7 V ≤ V_{CC} ≤ 3.6 V, –40°C ≤ T_A ≤ 85°C				40	
t_{OFF}	Turnoff time	V_{COM} = V_{CC}, R_L = 50 Ω, C_L = 35 pF, See Figure 14	V_{CC} = 3 V, T_A = 25°C			12	25	ns
			2.7 V ≤ V_{CC} ≤ 3.6 V, –40°C ≤ T_A ≤ 85°C				30	
t_{BBM}	Break-before-make time	V_{NC} = V_{NO} = V_{CC}, R_L = 50 Ω, C_L = 35 pF, See Figure 15	V_{CC} = 3 V, T_A = 25°C		1	10	25	ns
			2.7 V ≤ V_{CC} ≤ 3.6 V, –40°C ≤ T_A ≤ 85°C		0.5		30	
Q_C	Charge injection	V_{GEN} = 0, R_{GEN} = 0, C_L = 1 nF, See Figure 19				8.75		pC
$C_{NC(OFF)}$, $C_{NO(OFF)}$	NC and NO OFF capacitance	(V_{NC} or V_{NO}) = V_{CC} or GND, Switch OFF, See Figure 13				50		pF
$C_{NC(ON)}$, $C_{NO(ON)}$	NC and NO ON capacitance	(V_{NC} or V_{NO}) = V_{CC} or GND, Switch ON, See Figure 13				140		pF
$C_{COM(ON)}$	COM ON capacitance	V_{COM} = V_{CC} or GND, Switch ON, See Figure 13				140		pF
C_I	Digital input capacitance	V_{IN} = V_{CC} or GND, See Figure 13				2		pF
BW	Bandwidth	R_L = 50 Ω, Switch ON, See Figure 16				50		MHz
O_{ISO}	OFF isolation	R_L = 50 Ω, f = 1 MHz, See Figure 17				–72		dB
X_{TALK}	Crosstalk	R_L = 50 Ω, f = 1 MHz, See Figure 18				–72		dB
THD	Total harmonic distortion	R_L = 600 Ω, C_L = 50 pF, f = 20 Hz to 20 kHz, See Figure 20				0.005%		
SUPPLY								
I_{CC}	Positive supply current	V_{IN} = V_{CC} or GND, V_{CC} = 3.6 V		T_A = 25°C		15	200	nA
				–40°C ≤ T_A ≤ 85°C			1200	

279,4 mm