



iPhone SE - Three iPhones in One

**Cost Summary**

<b>Direct Material Costs</b> <i>(Component Costs)</i>	<b>\$156.20</b>
<b>Conversion Costs</b> <i>(Assembly / Insertion / Test Costs)</i>	<b>\$3.80</b>
<b>Total Cost</b> <i>(Direct Materials and Manufacturing)</i>	<b>\$160.00</b>

**Previously Launched Models With Similar or Same Components**

Itemized Components	MfgName	MfgPartNbr	Description	Total Cost	iPhone 6S	iPhone 6	iPhone 5S
<b>Display / Touchscreen</b>	LG Display		Display / Touchscreen Module, 4.0" Diagonal, 16.7M Color In-Cell Touch TFT, 1136x640 Pixels, 800:1 Contrast Ratio, 500cd/m^2 Brightness, w/ Corning Gorilla Glass	\$20.0000			X
<b>IC Content</b>							
<b>Apps Processor</b>	Apple	APL1022	Application Processor, Dual-Core ARMv8-A 64-bit 1.85GHz CPU, GT7600 6 Core GPU, 16nm, PoP	\$22.0000	X		
<b>Baseband IC</b>	Qualcomm	MDM9625M	Baseband Processor, Multi-Mode, GSM/CDMA/EVDO RevB/HSPA+/LTE Cat 4, w/ Carrier Aggregation	\$15.0000		X	
<b>Memory</b>							
NAND (eMMC, MLC, ...)	Toshiba Semiconductor	THGBX5G7D2KLDXG	16GB - MLC NAND Flash	\$3.6000	X	X	X
DRAM	SK Hynix	H9HKNNBTUMUMR-N	SDRAM, Mobile DDR4, 2GB, PoP	\$11.8000	X		
<b>Power Management Ics</b>							
Apps Processor / Other PM	Dialog Semiconductor		Power Management IC				
Baseband / Other PM	Qualcomm	PM8019	Power Management IC			X	
	Qualcomm	QFE1100	Power Management IC, Envelope Tracking for RF PAM			X	
<b>Total Power Management Section Cost Estimate</b>				<b>\$6.5000</b>			
<b>RF / PA Section</b>							
RF Transceiver	Qualcomm	WTR1625L	RF Transceiver, Multi-Mode, Multi-Band, GSM/CDMA/EVDO RevB/HSPA+/LTE			X	
RF Receiver	Qualcomm	WFR1620	RF Receiver			X	
Front End Modules / PAMs	Skyworks	SKY77826-16	Transmit Module w/ Duplexer				
	Skyworks	SKY77357-8	PAM		X		
	Skyworks	SKY77611	PAM				
	Qorvo	TQF6410	PAM				
	Qorvo	RF5159	FEM				
	Broadcom	ACPM-8020	Transmit Module, Contains 2 PAMs, 1 RF Switch, & 2 Filters				
	TDK Epcos	D5255	FEM				
<b>Total RF / PA Function Cost Estimate</b>				<b>\$13.7500</b>			
<b>User Interface Ics</b>							
Audio Codec	Cirrus Logic	CS42L71	Audio Codec		X		
	Cirrus Logic	CS35L21	Audio Power Amplifier		X		



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Itemized Components	MfgName	MfgPartNbr	Description	Total Cost	iPhone 6S	iPhone 6	iPhone 5S
NFC Controller	NXP	PN66V	NFC Controller & Front End		X		
Touch controller	Texas Instruments	CDPF3246C0	Touchscreen Line Driver				X
	Broadcom	BCM5976C1KUB6G	Touchscreen Controller				X
<b>Total User Interface Function (Not including sensors)</b>				<b>\$3.4500</b>			
<b>Camera Modules</b>							
Primary Camera Module			Primary Camera Module, 12MP, BSI CMOS, 1/3" Format, Auto Focus Lens		X		
Secondary Camera Module			Secondary Camera Module, 1.2MP, BSI CMOS, 1/5" Format, Fixed Lens			X	X
<b>Total Camera Modules</b>				<b>\$13.3000</b>			
<b>WLAN / BT / GPS</b>							
WLAN / BT Module(s)			Bluetooth / FM / WLAN Module, Contains Broadcom BCM4350M5KWB9G, Contains Skyworks LNAs & Antenna Switch, IEEE802.11 a/b/g/n/ac, Bluetooth V4.2, FM Radio		X		
<b>Total WLAN / BT / GPS Function</b>				<b>\$5.7500</b>			
<b>Sensors</b>							
Accelerometer / Gyroscope	Invensense		Accelerometer / Gyroscope, 6-Axis		X		
eCompass	Alps Electric	HSCDTD007	Electronic compass		X		
Fingerprint Sensor			Fingerprint Sensor Module, w/ Sapphire Crystal Cover, Machined Metal Frame			X	X
Other Sensors (like optical pulse sensor)							
<b>Total Sensors</b>				<b>\$5.4500</b>			
<b>Battery Pack(s)</b>	Huizhou Desay Battery		Battery, Li-Polymer, 3.82V, 1624mAh	<b>\$2.1500</b>			