

ASFC16G31M-51BIN vs KLMAG1JETD-B041 Comparison

Part Number & result Parameter	ASFC16G31M-51BIN	KLMAG1JETD-B041	Comparison Result
Product Description	eMMC	eMMC	Same
Capacity	16GB	16GB	Same
Bus Width	x1 (default), x4 & x8	x1 (default) , x4 & x8	Same
eMMC Version	v5.1 (backward compatible with previous MMC versions)	v5.1 (backward compatible with previous MMC versions)	Same
Operating Power Supply (Controller)	VccQ = 1.70V ~ 1.95V or 2.7V ~ 3.6V	VccQ = 1.70V ~ 1.95V or 2.7V ~ 3.6V	Same
Operating Power Supply (NAND)	Vcc = 2.7V~3.6V	Vcc = 2.7V~3.6V	Same
Operating Temperature	Industrial (Ta = -40°C ~ 85°C)	Industrial (Ta = -25°C ~ 85°C)	Different
Storage Temperature	-40°C ~ 85°C	-40°C ~ 85°C	Same
Clock Frequency	MMC I/F Clock: 0~200MHz (Max) MMC I/F Boot Freq: 0~52MHz	MMC I/F Clock: 0~200MHz (Max) MMC I/F Boot Freq: 0~52MHz	Same
Interface Timing Mode	HS200/ HS400	HS200/ HS400	Same
NAND Flash Component	Density: 128Gb Die:1	Density: 128Gb Die:1	Same
Enhance mode support	No	Yes	Different
Boot Partition 1	4096KB	4096KB	Same
Boot Partition 2	4096KB	4096KB	Same
Boot Act Time	<50 ms	<50ms	Same
Boot Data Time	<1 Sec	<0.1 Sec	Different
Initialization Time	Normal: 1 Sec After partition setting : 1 Sec	Normal: 1 Sec After partition setting : 3 Secs	Different
User Density Size	15,300,820,992 Byte	15,634,268,160 Byte	Comparable
Sequential Performance (HS400)	Write: 80MB/s Read = 140MB/s	Write: 50MB/s Read = 330MB/s	Different
Active Power Consumption	VCCQ = 120mA VCC = 120mA	VCCQ = 180mA VCC = 50mA	Comparable
Standby Power Consumption	VCCQ = 600uA VCC = 50uA	VCCQ = 400uA VCC = 85uA	Comparable
Sleep Power Consumption	VCCQ = 600uA	VCCQ = 400uA	Comparable
Package Type	153-ball TFBGA	153-ball TFBGA	Same
Package Outer Dimensions	11.5 x 13 x 1.0mm	11.5 x 13 x 0.8mm	Comparable
Package Ball pitch/matrix	0.5mm pitch, 6.5mm x 6.5mm	0.5mm pitch, 6.5mm x 6.5mm	Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same
Pin to Pin Compatible	Yes.		