12815 NE 124th St STE#D, Kirkland, WA-98034

ASFC16G31M-51BIN vs ASFC16G31TA-51BCN Comparison

Parameter \ Part Number & result	ASFC16G31M-51BIN	ASFC16G31TA-51BCN	Comparison remark
Product Description	**eMMCv5.1 , Rev.0**	**eMMC v5.1, rev.A**	
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)	Extended Commercial (Ta = -25°C ~ 85°C)	Same
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, MLC	Density: 128Gb Die:1, TLC	Different
Enhance mode support Configure pSLC mode	No	Yes	Rev.A better
Boot Partition 1	4096KB	4096KB	Same
Boot Partition 2	4096KB	4096KB	Same
Sequential Performance (HS400)	Write: 80MB/s Read = 140MB/s	Write: 195MB/s Read =315MB/s	Comparable
Active Power Consumption	VCCQ = 120mA VCC = 120mA	VCCQ = 160mA VCC = 90mA	Comparable
Standby Power Consumption	VCCQ = 600uA VCC = 50uA	VCCQ = 100uA VCC = 50uA	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 1.0mm	Same
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.		