

### Introduction

This application sheet compares the MT9075B functionality with that of the MT9075A. The MT9075B meets and exceeds network standards, and reduces hardware and software overhead.

The MT9075B is a pin to pin compatible enhanced version of the MT9075A. Every effort was made to design the MT9075B such that backwards

compatibility with the MT9075A was maintained. Systems currently using the MT9075A will be able to accept the MT9075B with little or no modifications to their existing hardware and software.

Table 1 below illustrates the functional differences between the two devices. For full details on the MT9075B functionality, refer to the MT9075B data sheet.

Item	Description	MT9075A	MT9075B
1	Immunity to cross talk and reflections.	-18dB of crosstalk causes bit errors when the composite signal is attenuated to 5 dB.	Receiver is immune to up to -18 dB of crosstalk with $6\text{dB } \sqrt{f}$ attenuation as per G.703.
2	Automatic remote alarm generation (RAI)	Transmit RAI (bit 3 of NFAF timeslot 0) is programmed under software control	Transmit RAI will be generated by a state machine in the MT9075B if enabled by ARAI - bit 4 address 11H of master control page 1.
3	JTAG default instruction	A reset loads 010	A reset loads 001
4	JTAG IDCODE	Revision field in BSDL file set to hex 0.	Revision field in BSDL file set to hex 1.
5	Transparent mode	Transmit Sa bit 4 always includes a 4 Khz data link.	If bit 6 (CRCM) address 11H of page 1 is set high transmit Sa bit 4 always includes a 4 Khz data link. If CRCM is low then transparent mode transmits all data unaltered from DSTi onto the line.
6	Bits 1SEC, 2SEC, T1 and T2 in the Timer Status Word (page 3 address 12H)	1SEC, 2SEC, T1 and T2 are not available in freerun mode	1SEC, 2SEC, T1 and T2 are available in all modes.
7	T1, T2	T1, T2 timers are activated by loss or acquisition of frame synchronization.	T1, T2 timers are activated by loss or acquisition of frame synchronization and remote alarm.
8	Digital loss of signal threshold	Loss of signal is declared after 255 successive zeros have been received.	Loss of signal is declared after 127 successive zeros have been received.

**Table 1 - Functional Differences between the MT9075A and MT9075B**



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