Application Brief
AFE77xxD BSDL Guidelines

TEXAS INSTRUMENTS

Guidelines

1. RESETZ: Pulsed from VSS to IOVDD for > 100ns upon power up.
   a. If RESETZ is tied to IOVDD upon power-up, the device comes up in an unknown state and the direction of IO pads is unknown.
   b. To bring up the device to a known state, RESETZ needs to be pulsed from VSS to IOVDD.
2. The two pins BIST1 and BIST0 determine the mode of operation. For BSR mode:
   a. BISTB1: To be tied HIGH.
   b. BISTB0: To be tied LOW.
3. Some of the IOs are not brought out but have BSR cells.

   a. These are mentioned as linkage and associated with some of the power pads like VDDA.
   b. Nothing needs to be done for these pins.
4. IR width is 8 bits for all instructions.
5. The instruction opcodes are as follows:

   a. SAMPLE : 0x02
   b. EXTEST : 0x00
   c. BYPASS : 0xFF
   d. IDCODE : 0x01
6. 32-bit DR value for IDCODE of the device is as follows:
   a. MANUFACTURER NUMBER: 11 bits: 0x451
   b. PART_NUMBER: 16 bits: 0x0078
   c. VERSION_NUMBER: 4 bits: 0x0
   d. IDCODE: 32 bits: 0x000788A3
7. Table 1 summarizes the modes of operation of the device using BIST inputs

Table 1. Device Modes of Operation

BIST1	BIST0	Mode	BSCAN
0V	0V	Functional	No
0V	1.8V	Functional	No
1.8V	**0V**	**BSCAN**	**Yes**
1.8V	1.8V	INVALID	No

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