DISCLAIMER by VSD Corp. Pvt. Ltd.

- **Bandgap (avsdbgp_3v3) spec sheet for 180nm tech node**
- **Original Specs from XFAB and Recreated by VSD Corp. Pvt. Ltd.**
- **To be used only for Educational purposes**
- **Please contact Kunal at kunalpghosh@gmail.com in case of any doubts**

VSD Proprietary

XFAB-180nm-6 Metal Layer			
IO_CELL name	**Pin names**	**Direction**	**Values**
BBCDU4F (13440 um2)	A	I	
	EN	I	
Bi-directional Buffer with Non-Inverting CMOS Input and Gated Pull-down and Pull-up, Strength 4mA @ 3.3V, Normal, High noise (Fast speed)	GNDO	I	VSS
	GNDR	I	VSS
	PAD	IO	
	PDEN	I	
	PI	I	
	PO	O	
	PUEN	I	
	VDD	I	VDD1V8
	VDDO	I	VDD3V3
	VDDR	I	VDD3V3
	Y	O	

INPUTS					Bi-Dir	OUTPUTS	
A	**EN**	**PDEN**	**PI**	**PUEN**	**PAD**	**PO**	**Y**
Input Path (PAD --> Y --> core)							
X	1	X	X	X	**0**	1	**0**
X	1	X	0	X	**1**	1	**1**
X	1	X	1	X	**1**	0	**1**
PAD --> high-impedence							
X	1	1	1	1	**Z**	X	X
X	1	1	0	1	**Z**	1	X
X	1	0	X	1	**Z**	1	0
X	1	1	0	0	**Z**	1	1
X	1	1	1	0	**Z**	0	1
Output Path (core --> A --> PAD) when EN = 0							
X	1	-	-	-	**Z**	-	X
0	**0**	-	-	-	**0**	-	0
1	**0**	-	-	-	**1**	-	1