

Preliminary Data Sheet Supplement

Subject:	Compatibility Differences
Data Sheet Concerned:	All MSP 34xxD Data Sheets: 6251-482-2PD, 6251-475-2PD, 6251-486-2PD
Supplement:	No. 3/ 6251-526-3PDS
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MSP 34xxD Family Compatibility Differences:

The MSP-family (MSP 3410D, MSP 3400D, MSP 3415D, MSP 3405D, MSP 3417D, MSP 3407D) is currently available in different technologies (0.8 μ , 0.5 μ , and 0.45 μ).

The specific differences of the various implementations are listed in the attached table.

Compatibility Differences between 0.5/0.45µ and 0.8µ MSPD Devices

MSP-Type		MSP 3410D / MSP 3400D			MSP 3415D / MSP 3405D			MSP 3417D / MSP 3407D		
Version Code		B4	C5		A2	B3		A1	B2	
Technology		0.8μ	0.5μ	0.45μ	0.8μ	0.5μ	0.45μ	0.8μ	0.5μ	0.45μ
Mask Iteration Code		67, 6B, 6G	8C and 94	G1, G4 H1, H3	6C, 6D	8D	G2, G5 H2, H4	6E, 6F	8F	G3, G6, H5
Feature	Documented in									
Datasheet Reference		MSP 3400D, MSP 3410D Edit. May 1999			MSP 3405D, MSP 3415D Edit Oct. 1999			MSP 3407D, MSP 3417D Edit Jan. 2000		
General Hardware										
Power Consumption	Datasheet	910 mW	640 mW	600 mW	910 mW	640 mW	600 mW	910 mW	640 mW	600 mW
Total Electromagnetic Radiation (EMR)		-	less due to less Power Consumption		-	less due to less Power Consumption		-	less due to less Power Consumption	
V _{AGNDC0} typical	Datasheet	3.73 V	3.77 V		3.73 V	3.77 V		3.73 V	3.77 V	
DC _{VREFTOP} typical	Datasheet	2.6 V	2.66 V		2.6 V	2.66 V		2.6 V	2.66 V	
Maximum V _{sup1}	Datasheet	8.4 V	8.7 V		8.4 V	8.7 V		8.4 V	8.7 V	
Digital Input Pin characteristics (I2S_IN1/2, I2S_WS/CL, StANDBYQ)	Datasheet	-	modified specifications (see datasheet)		-	modified specifications (see datasheet)		-	modified specifications (see datasheet)	
Demodulator										
Carrier Mute		-	slightly slower, but more stable: 64ms mute, 500 ms demute		-	slightly slower, but more stable: 64ms mute, 500 ms demute		-	slightly slower, but more stable: 64ms mute, 500 ms demute	
AM-Frequency Response		-	more flat		-	more flat		-	more flat	
Automatic Standard Detection		-	faster, more stable and with mute- function		-	faster, more stable and with mute- function		-	faster, more stable and with mute- function	
Baseband Processing										
J17-Deemphasis for FM -Input channels	Datasheet Supplement	available	not available (75μs instead of J17)		available	not available (75μs instead of J17)		available	not available (75μs instead of J17)	
I ² S-Bus	Datasheet	available			not available	available		not available		
Frequency response of 50/75μs Deemphasis		-	more flat		-	more flat		-	more flat	
DC_Level (DSP-Reg.: 1B _{hex} /1C _{hex})		-	Level increased by appr. 15% 1*)		-	Level increased by appr. 15% 1*)		-	Level increased by appr. 15% 1*)	

Micronas

MSP-Type		MSP 3410D / MSP 3400D			MSP 3415D / MSP 3405D			MSP 3417D / MSP 3407D			
Version Code		B4	C5		A2	B3		A1	B2		
Technology		0.8μ	0.5μ	0.45μ	0.8μ	0.5μ	0.45μ	0.8μ	0.5μ	0.45μ	
Mask Iteration Code		67, 6B, 6G	8C and 94	G1, G4 H1, H3	6C, 6D	8D	G2, G5 H2, H4	6E, 6F	8F	G3, G6, H5	
Feature		Documented in									
D/A-Outputs											
S/N-ratio			-	improved		-	improved		-	improved	
Pinning											
SCART2_Out pin		Datasheet	connected			not connected			connected	not connected	
DAC-Headphone pins		Datasheet	connected			not connected			connected	not connected	
Audio_Clock_Out		Datasheet	connected			connected	not connected (s. Datasheet P.51)		not connected		
The following pins refer to PQFP80:											
Pin 52		Datasheet	ASG2	ASG2	ASG2	ASG2	not connected (s. Datasheet P.51)		MSP 34x7D not available in 80-PQFP		
Pin 32		Datasheet	ASG3	not connected (s. Datasheet P.59)		ASG3	not connected (s. Datasheet P.51)		MSP 34x7D not available in 80-PQFP		
Pin 14		Datasheet	not connected	DVSS	DVSS	not connected	DVSS	DVSS	MSP 34x7D not available in 80-PQFP		
Pin 16		Datasheet	DVSS	not connected	not connected	DVSS	not connected	not connected	MSP 34x7D not available in 80-PQFP		

*1) In spite of increased DC-level controller-algorithms for automatic Sat-Carrier detection should run properly