Errata to
DL136/D Rev. 4
Communications Device Data

July 19, 1996

This errata applies to the following sections of DL136/D, Rev. 4, Q1/96:

- Functional Selection Guide
- MC13142, Low Power DC – 1.8 GHz LNA, Mixer and VCO
- MC13155, Wideband FM IF
- MC14497, PCM Remote Control Transmitter
- MC44107, IR Remote Control Transmitter
- MC34017, Telephone Tone Ringer
- MC145170–1, PLL Frequency Synthesizer with Serial Interface
- MC145402, Serial 13–Bit Linear Codec (A/D and D/A)
- MC145436A, Low–Power Dual Tone Multiple Frequency Receiver
- MC145480, 5 V PCM Codec–Filter
- MC145574, ISDN S/T Interface Transceiver II
- MC145583, 3.3 V Only Driver/Receiver with an Integrated Standby Mode
- MC68HC68T1 Real–Time Clock plus RAM with Serial Interface
- Package Dimension, 940C–02
- Package Dimension, 873A–02

The following pages have been amended. Please take the time to make a permanent note of these changes in your book. In addition, the following data sheets have been revised and reprinted as standalone documents. They are available through the Literature Distribution Center, the MFax system, and the Motorola SPS World Wide Web site. (See last page for addresses and information.) These documents are: MC34017/D, MC145170–1/D, MC145436A/D, MC145574TS/D, MC145583/D, and MC68HC68T1/D.

Functional Selection Guide

Page:

1–5   MC145170–1 function should read: "PLL Frequency Synthesizer with Serial Interface (185 MHz)".

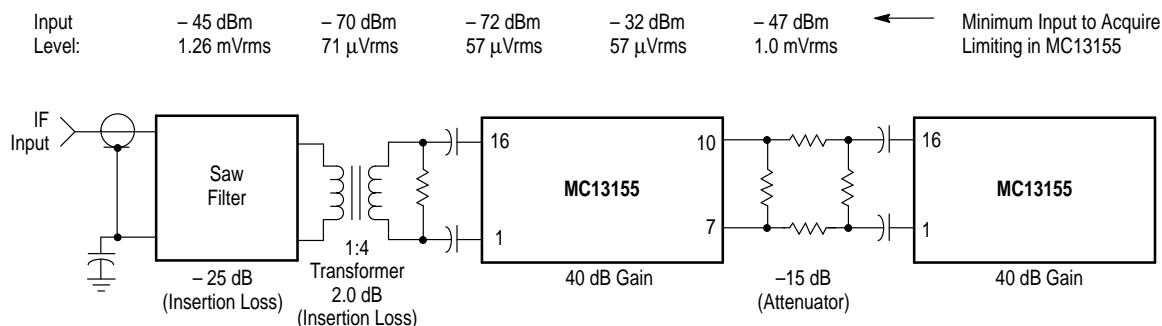### MC13142 Low Power DC – 1.8 GHz LNA, Mixer and VCO

Page:

2–180   Referencing the pin connections for SO–16, Pins 9, 10, and 11 should be changed as follows:
Pin 9 — V_{EE}, Pin 10 — IF–, Pin 11 — IF+.

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MC13155 Wideband FM IF

Page:

2–186   The Block Diagram should appear as follows:

Block Diagram of 70 MHz Video Receiver Application Circuit

| Input Level: | − 45 dBm 1.26 mVrms | − 70 dBm 71 μVrms | − 72 dBm 57 μVrms | − 32 dBm 57 μVrms | − 47 dBm 1.0 mVrms | ← | Minimum Input to Acquire Limiting in MC13155 |

MC14497 PCM Remote Control Transmitter

Page:

2–271   Referencing the E9 Row Input (Pin 3) paragraph, all three references to "Table NO TAG" should be replaced with "Table 1".

MC34017 Telephone Tone Ringer

A revised data sheet (MC34017/D) is available.

Page:

2–479   Pages 2–479 through 2–482 are incorrect. See new data sheet for corrected information.

MC44107 IR Remote Control Transmitter

Page:

2–557   Referencing the Pin Assignment, Pin 20 should be changed to V_{DD}.

MC145170–1 PLL Frequency Synthesizer with Serial Interface

A revised data sheet (MC145170–1/D) is available.

Page:

2–748   Referencing the Operating Supply Current, replace "TBD" with the following:
0.6 mA @ 3 V, 30 MHz
1.5 mA @ 3 V, 100 MHz
3.0 mA @ 5 V, 50 MHz
5.8 mA @ 5 V, 185 MHz

2–750   The guaranteed limit for I_{in} for the f_{in} pin should be ±150 μA.

The test condition for I_{dd} should read:
f_{in} = 500 mV p–p; OSC_{in} = 1 MHz @ 1 V p–p; f_R, f_V, REF_{out} = Inactive and No Connect; OSC_{out}, ϕV, ϕR, PD_{out}, LD = No Connect; D_{in}, ENB, CLK = V_{DD} or V_{SS}

Referencing V_{DD} V for I_{dd}, "5.0" should be replaced with "—".

Note ** should read:
The nominal value at 3 V is 0.6 mA @ 30 MHz and 1.5 mA @ 100 MHz. The nominal value at 5 V is 3.0 mA @ 50 MHz and 5.8 mA @ 185 MHz.

MC145402 Serial 13–Bit Linear Codec (A/D and D/A)

Page:

2–914   The following package has been added to the device: DW Suffix, SOG Package, Case 751G.
The ordering information should now include MC145402DW, SOG Package.

MC145436A Low–Power Dual Tone Multiple Frequency Receiver

A revised data sheet (MC145436A/D) is available.

Page:

2–986   The following sentence should be added at the end of the paragraph for Guard Time:
If left open, this pin is internally pulled to ground.

MC145480 5 V PCM Codec–Filter

The MC145480 has been replaced by the MC14LC5480. See new data sheet (MC14LC5480/D) for information.

MC145574 ISDN S/T Interface Transceiver

A revised technical summary (MC145574TS/D) is available. The package corrections are shown here, but several other changes were incorporated into the new revision.
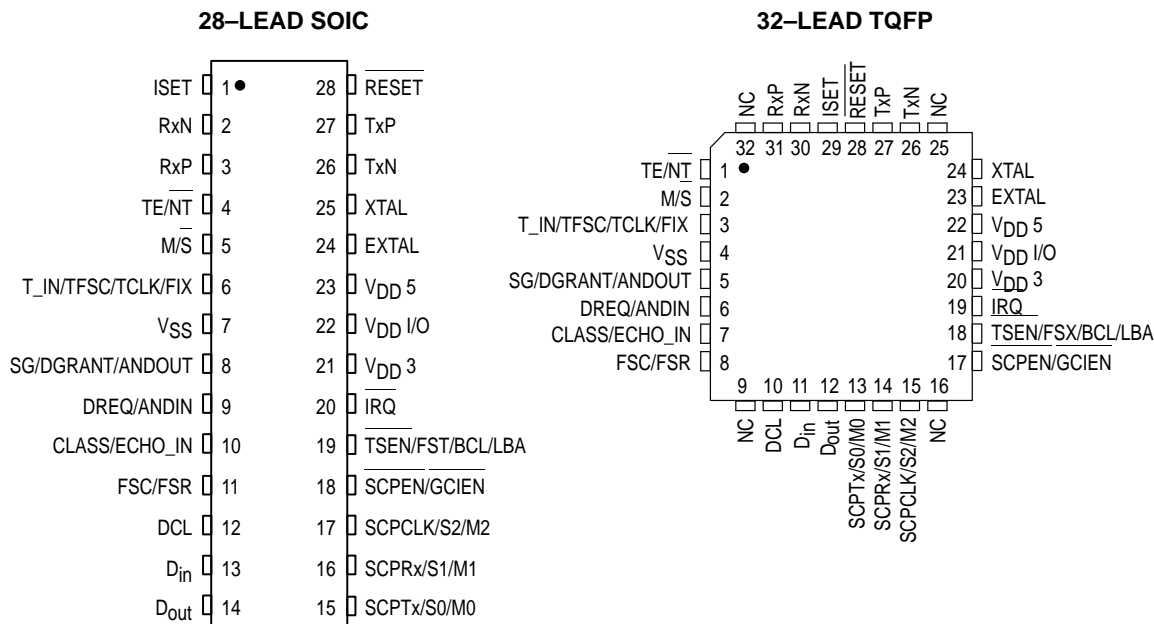
Page:

2–1195   The package information should be changed to read: DW Suffix, SOG Package, Case 751F; and PB Suffix, TQFP, Case 873A.
The ordering information should be changed to read: MC145574DW, SOG Package; and MC145574PB, TQFP.

2–1196   The pin assignments should be changed to the following:

PIN ASSIGNMENTS

28–LEAD SOIC

ISET	1●	28	RESET
RxN	2	27	TxP
RxP	3	26	TxN
TE/NT	4	25	XTAL
M/S	5	24	EXTAL
T_IN/TFSC/TCLK/FIX	6	23	V_{DD} 5
V_{SS}	7	22	V_{DD} I/O
SG/DGRANT/ANDOUT	8	21	V_{DD} 3
DREQ/ANDIN	9	20	IRQ
CLASS/ECHO_IN	10	19	TSEN/FST/BCL/LBA
FSC/FSR	11	18	SCPEN/GCIEN
DCL	12	17	SCPCLK/S2/M2
D_{in}	13	16	SCPRx/S1/M1
D_{out}	14	15	SCPTx/S0/M0

32–LEAD TQFP

Top pins (32–25): NC, RxP, RxN, ISET, RESET, TxP, TxN, NC

TE/NT	1●	24	XTAL
M/S	2	23	EXTAL
T_IN/TFSC/TCLK/FIX	3	22	V_{DD} 5
V_{SS}	4	21	V_{DD} I/O
SG/DGRANT/ANDOUT	5	20	V_{DD} 3
DREQ/ANDIN	6	19	IRQ
CLASS/ECHO_IN	7	18	TSEN/FSX/BCL/LBA
FSC/FSR	8	17	SCPEN/GCIEN

Bottom pins (9–16): NC, DCL, D_{in}, D_{out}, SCPTx/S0/M0, SCPRx/S1/M1, SCPCLK/S2/M2, NC

MC145574 ISDN S/T Interface Transceiver (continued)

Page:

      2–1197   The Power Dissipation table should be replaced with the following:

POWER DISSIPATION (T_A = − 40 to + 85°C, V_{DD} 5 = 5.0 V ± 5%, Voltages referenced to V_{SS} and V_{DD}IO connected to V_{DD} 5)

Characteristic	Min	Typ	Max	Unit
DC Supply Voltage	4.75	5	5.25	V
Worst Case Power Consumption**	—	60*	90	mW
Transmit Power Down	—	50*	70	mW
Sleep Mode	—	0.5*	4	mW
Absolute Minimum Power Down	—	0.1*	2	mW

  * These values have been measured on some sampled devices from several lots at 25° and V_{DD} = 5 V.
 ** While sending and receiving 96 kHz signal on S/T interface.

MC145583 3.3 Volt Only Driver/Receiver with an Integrated Standby Mode (EIA–232–E and CCITT V.28)

A revised data sheet (MC145583/D) is available.

Page:

      2–1217   The following package has been added to the device: DW Suffix, SOG Package, Case 751F.
                  The ordering information should now include MC145583DW, SOG Package.

MC68HC68T1 Real–Time Clock plus RAM with Serial Interface

A revised data sheet (MC68HC68T1/D) is available.

Package Dimension 873A–02

Page:

8–12   The package dimension for Case 873A–02 (PB Suffix) should be added to the mechanical section. This corresponds with MC145574, ISDN S/T Interface. The package is as follows:
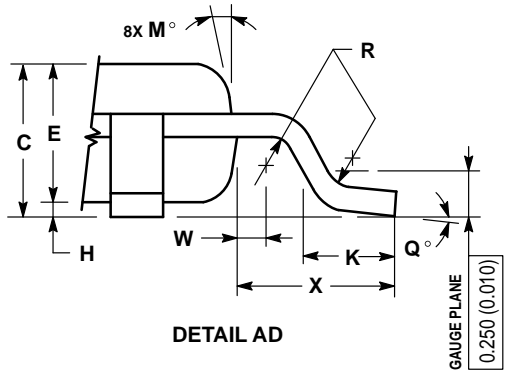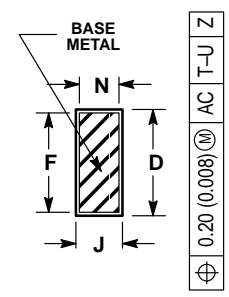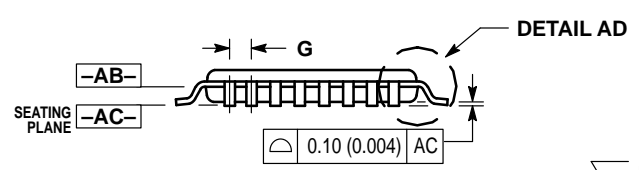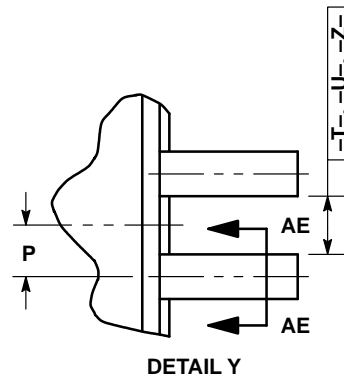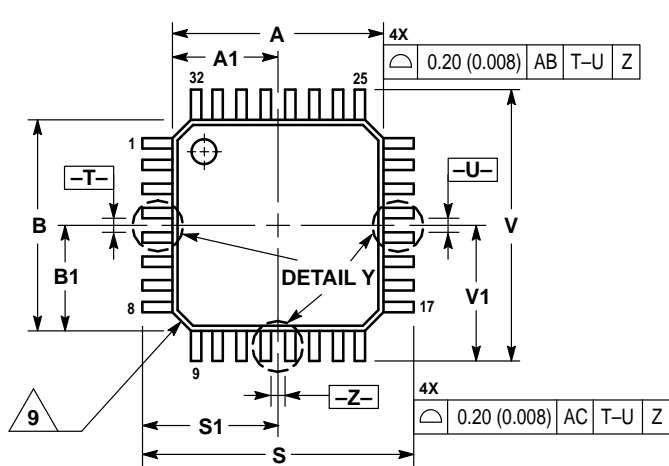
NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETER.
3. DATUM PLANE –AB– IS LOCATED AT BOTTOM OF LEAD AND IS COINCIDENT WITH THE LEAD WHERE THE LEAD EXITS THE PLASTIC BODY AT THE BOTTOM OF THE PARTING LINE.
4. DATUMS –T–, –U–, AND –Z– TO BE DETERMINED AT DATUM PLANE –AB–.
5. DIMENSIONS S AND V TO BE DETERMINED AT SEATING PLANE –AC–.
6. DIMENSIONS A AND B DO NOT INCLUDE MOLD PROTRUSION. ALLOWABLE PROTRUSION IS 0.250 (0.010) PER SIDE. DIMENSIONS A AND B DO INCLUDE MOLD MISMATCH AND ARE DETERMINED AT DATUM PLANE –AB–.
7. DIMENSION D DOES NOT INCLUDE DAMBAR PROTRUSION. DAMBAR PROTRUSION SHALL NOT CAUSE THE D DIMENSION TO EXCEED 0.520 (0.020).
8. MINIMUM SOLDER PLATE THICKNESS SHALL BE 0.0076 (0.0003).
9. EXACT SHAPE OF EACH CORNER MAY VARY FROM DEPICTION.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	7.000 BSC		0.276 BSC	
A1	3.500 BSC		0.138 BSC	
B	7.000 BSC		0.276 BSC	
B1	3.500 BSC		0.138 BSC	
C	1.400	1.600	0.055	0.063
D	0.300	0.450	0.012	0.018
E	1.350	1.450	0.053	0.057
F	0.300	0.400	0.012	0.016
G	0.800 BSC		0.031 BSC	
H	0.050	0.150	0.002	0.006
J	0.090	0.200	0.004	0.008
K	0.500	0.700	0.020	0.028
M	12° REF		12° REF	
N	0.090	0.160	0.004	0.006
P	0.400 BSC		0.016 BSC	
Q	1°	5°	1°	5°
R	0.150	0.250	0.006	0.010
S	9.000 BSC		0.354 BSC	
S1	4.500 BSC		0.177 BSC	
V	9.000 BSC		0.354 BSC	
V1	4.500 BSC		0.177 BSC	
W	0.200 REF		0.008 REF	
X	1.000 REF		0.039 REF	

DETAIL Y

DETAIL AD

SECTION AE–AE

Package Dimension 940C–02

Page:

8–12   The package dimension for Case 940C–02 (SD Suffix) should be added to the mechanical section. This does **not** replace Case 940C–03 (VF Suffix). The package is as follows:
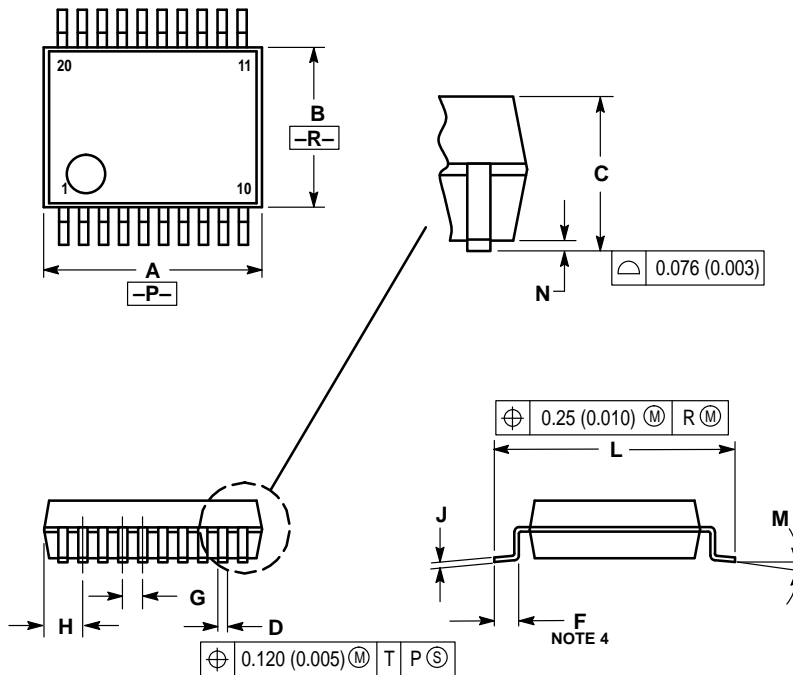
NOTES:
1. CONTROLLING DIMENSION: MILLIMETER.
2. DIMENSIONS AND TOLERANCES PER ANSI Y14.5M, 1982.
3. DIMENSIONS A AND B DO NOT INCLUDE MOLD FLASH OR PROTRUSIONS AND ARE MEASURED AT THE PARTING LINE. MOLD FLASH OR PROTRUSIONS SHALL NOT EXCEED 0.15MM PER SIDE.
4. DIMENSION IS THE LENGTH OF TERMINAL FOR SOLDERING TO A SUBSTRATE.
5. TERMINAL POSITIONS ARE SHOWN FOR REFERENCE ONLY.
6. THE LEAD WIDTH DIMENSION DOES NOT INCLUDE DAMBAR PROTRUSION. ALLOWABLE DAMBAR PROTRUSION SHALL BE 0.08MM TOTAL IN EXCESS OF THE LEAD WIDTH DIMENSION.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	7.10	7.30	0.280	0.287
B	5.20	5.38	0.205	0.212
C	1.75	1.99	0.069	0.078
D	0.25	0.38	0.010	0.015
F	0.65	1.00	0.026	0.039
G	0.65 BSC		0.026 BSC	
H	0.59	0.75	0.023	0.030
J	0.10	0.20	0.004	0.008
L	7.65	7.90	0.301	0.311
M	0 °	8 °	0 °	8 °
N	0.05	0.21	0.002	0.008

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