



MC10ELT and MC100ELT: ECLinPS Lite Translators 10 K and 100 K Emitter-Coupled Logic in Picoseconds Integrated Circuits

| Mfr.'s Type |                            | Description                                                                     | No. of Leads | Mfr.'s Type |                            | Description                                                                         | No. of Leads |
|-------------|----------------------------|---------------------------------------------------------------------------------|--------------|-------------|----------------------------|-------------------------------------------------------------------------------------|--------------|
| MC10ELT     | MC100ELT                   |                                                                                 |              | MC10ELT     | MC100ELT                   |                                                                                     |              |
| SOIC        | SOIC                       |                                                                                 |              | SOIC        | SOIC                       |                                                                                     |              |
| —           | MC100ELT21D<br>MC100ELT22D | Differential PECL To TTL Translator<br>Dual TTL To Differential PECL Translator | 8<br>8       | —           | MC100ELT23D<br>MC100ELT25D | Dual Differential PECL-to-TTL Translator<br>Dual Differential ECL-to-TTL Translator | 8<br>8       |

MC10H: MECL 10H Monolithic Emitter-Coupled Logic Integrated Circuits

| Mfr.'s Type                                      |                               | Description                                                                                                         | No. of Leads                     | Mfr.'s Type                 |                      | Description                                                                                                | No. of Leads                 |
|--------------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------|----------------------|------------------------------------------------------------------------------------------------------------|------------------------------|
| PDIP                                             | PLCC                          |                                                                                                                     |                                  | PDIP                        | PLCC                 |                                                                                                            |                              |
| MC10H101P<br>MC10H115P<br>MC10H116P<br>MC10H124P | —<br>MC10H115FN<br>MC10H124FN | Quad OR/NOR Gate<br>Quad Line Receiver<br>Triple Line Receiver<br>Quad TTL-to-MECL Translator with TTL Strobe Input | 16/20<br>16/20<br>16/20<br>16/20 | MC10H125P<br>MC10H131P<br>— | —<br>MC10H351FN<br>— | Quad MECL-to-TTL Translator<br>Dual Type D Master-Slave Flip-Flop<br>Quad TTL/NMOS To PECL Translator<br>— | 16/20<br>16/20<br>20/20<br>— |

MC10: MECL 10 K Monolithic Emitter-Coupled Logic Integrated Circuits

| Mfr.'s Type                                              | Description                                                                                                                                                            | No. of Leads                  | Mfr.'s Type                                              | Description                                                                                                                                                                          | No. of Leads                              |
|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| PDIP                                                     |                                                                                                                                                                        |                               | PDIP                                                     |                                                                                                                                                                                      |                                           |
| MC10102P<br>MC10103P<br>MC10104P<br>MC10107P<br>MC10113P | MECL Quad 2-Input NOR Gate<br>MECL Quad 2-Input OR Gate<br>MECL Quad 2-Input AND Gate<br>MECL Triple 2-Input Exclusive OR/Exclusive NOR<br>MECL Quad Exclusive OR Gate | 16/20<br>16<br>16<br>16<br>16 | MC10116P<br>MC10124P<br>MC10125P<br>MC10131P<br>MC10216P | MECL Triple Line Receiver<br>MECL Quad TTL To MECL Translator<br>MECL Quad MECL To TTL Translator<br>MECL Dual Type D Master-Slave Flip-Flop<br>MECL High Speed Triple Line Receiver | 16/20<br>16/20<br>16/20<br>16/20<br>16/20 |

Line Receivers — EIA Standard

| Mfr.'s Type         |              | Single Ended or Differential | Type of Output                       | tprop Delay Time Max. (ns) | Party Line Operation | Strobe or Enable | Power Supplies (V) | Receivers Per Package | Companion Drivers | Comments               | No. of Leads |
|---------------------|--------------|------------------------------|--------------------------------------|----------------------------|----------------------|------------------|--------------------|-----------------------|-------------------|------------------------|--------------|
| PDIP                | SOIC         |                              |                                      |                            |                      |                  |                    |                       |                   |                        |              |
| MC1489AP<br>MC1489P | —<br>MC1489D | Single Ended<br>Single Ended | Resistor Pull-Up<br>Resistor Pull-Up | 85<br>85                   | —<br>—               | —<br>—           | +5.0<br>±5.0       | 4<br>4                | MC1488<br>MC1488  | EIA-232-D<br>EIA-232-D | 14<br>14     |

Line Drivers

EIA Standard

| Mfr.'s Type  |                      | Output Current Capability (mA) | Single Ended or Differential               | tprop Delay Time Max. (ns) | Party Line Operation | Strobe or Enable     | Power Supplies (V)  | Receivers Per Package | Companion Drivers  | Comments                                 | No. of Leads |
|--------------|----------------------|--------------------------------|--------------------------------------------|----------------------------|----------------------|----------------------|---------------------|-----------------------|--------------------|------------------------------------------|--------------|
| PDIP         | SOIC                 |                                |                                            |                            |                      |                      |                     |                       |                    |                                          |              |
| MC1488P<br>— | MC1488D<br>MC26LS30D | 10<br>60                       | Single Ended<br>Single Ended, Differential | 350<br>300                 | —<br>—               | —<br>422 Yes, 423 No | ±9.0 to ±12<br>±5.0 | 4<br>2 (422), 4 (423) | MC1489<br>AM26LS32 | EIA-232-D<br>EIA-422, EIA-423 Switchable | 14<br>16     |

Peripheral Drivers

| Mfr.'s Type | Output Current Capability (mA) | Input Capability | Propagation Delay Time Max. (us) | Output Clamp Diode | Off State Voltage Max. (V) | Drivers Per Package | Logic Function | Package Type |
|-------------|--------------------------------|------------------|----------------------------------|--------------------|----------------------------|---------------------|----------------|--------------|
| MC1413P     | 500                            | TTL, +5 V CMOS   | 1                                | Yes                | 50                         | 7                   | Invert         | 16 Lead PDIP |

CMOS Display Drivers

| Mfr.'s Type                            | Function                                                                                                                | Display Type                                                                            | Input Format                                 | Drive Capability Per Package           | On-Chip Latch     | Display Control                                             | Segment Drive Current            | Package Type                                 |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------|-------------------|-------------------------------------------------------------|----------------------------------|----------------------------------------------|
| MC14543BCP<br>MC14511BCP<br>MC14513BCP | BCD-to-7 Segment Latch/Decoder/Driver<br>BCD-to-7 Segment Latch/Decoder/Driver<br>BCD-to-7 Segment Latch/Decoder/Driver | LCD, Direct Drive<br>LED, Incandescent, Fluorescent*<br>LED, Incandescent, Fluorescent* | Parallel BCD<br>Parallel BCD<br>Parallel BCD | 7 Segments<br>7 Segments<br>7 Segments | Yes<br>Yes<br>Yes | Blank<br>Blank, Lamp Test<br>Blank, Ripple Blank, Lamp Test | Approx. 1.0 mA<br>25 mA<br>25 mA | 16 Lead PDIP<br>16 Lead PDIP<br>18 Lead PDIP |

\*Absolute maximum working voltage=18 V.

Balanced Modulator/Demodulator

| Mfr.'s Type |         | Vcc (V) | Icc (mA) | Carrier Suppression                           | Common Mode Rejection | Function                                                                                             | No. of Leads |
|-------------|---------|---------|----------|-----------------------------------------------|-----------------------|------------------------------------------------------------------------------------------------------|--------------|
| PDIP        | SOIC    |         |          |                                               |                       |                                                                                                      |              |
| MC1496P     | MC1496D | 5 to 30 | 10       | 65 dB typ. @ 0.5 MHz<br>50 dB typ. @ 10.0 MHz | 85 dB typ.            | Carrier Balance >50 dB, General Purpose Balanced Modulator/Demodulator For AM, SSB and FM Detection. | 14           |