Four families of integrated displays provide smart solutions to your display requirements. Why design with discrete components when you can save time, effort, and board space with a standard integrated display from Three-Five Systems? All of these displays combine LED and silicon chip-on-board manufacturing techniques to provide compact, functional display subsystems. They are available off-the-shelf from Three-Five or our worldwide network of distributors at cost-effective prices.

Benefits of Integrated Displays
- Complete Display Subsystem—Chip-on-Board Driver IC
- Saves Design, Assembly, Test and Inventory Costs
- Reduced Development Time—Faster Time to Market
- Saves Front Panel Space by Up to 50%
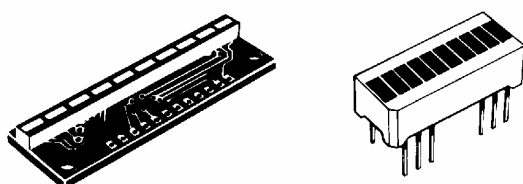- Simple Data Input Reduces Interconnection

Digital Input Displays
— Microprocessor Compatible
— Simple Bit Mapped Software
— Frees Microprocessor Time

Analog Input Displays
— Replaces Moving Needle Meters
— Programmable Voltage Range
— On-board Voltage Reference

LED Bargraph Voltmeters with On-board Analog Drivers—TSM39XXX Series

Features
- End stackable for cascaded arrays
- Chip-on-board analog driver
- Linear, logarithmic & VU functions
- Selectable Bar or Dot Mode
- Variety of LED Colors/Sequences

Applications
- Stereo power meter
- Ham & CB S meter
- VU meter in tape recorders
- Process control meters
- Graphic Equalizers

Part Number Format TSM 39 2 4 1

```
FORMAT/PACKAGE ─────────┐            ┌─ COLOR
  1 = 2" x 0.85" Horizontal                None = Standard Red
  2 = 2" x 0.40" Horizontal (New Design)    1 = High Efficiency Red
  3 = 1" x 0.40" Vertical                    2 = Green
                                             3 = Yellow
DRIVER TYPE ────────────────────────┘       6 = 6 Green, 4 Red*
  4 = Linear Function                        7 = 8 Green, 2 Red*
  5 = Logarithmic Function*                  8 = 6 Green, 2 Yel,
  6 = VU Function                                2 Red*
```

*Available as standard in TSM3914X series only. Customized color arrays are available

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Numeric LED Displays with On-board Serial Drivers—TSM5000/6000 Series
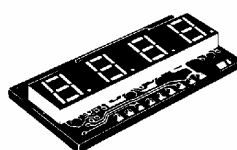
New Design—TSM6X55 Series—Four 0 5" digits on a 2 0" x 1 0" PCB

Features
- Two and four digit configurations
- 0.3" and 0.5" digit sizes
- Low current AlGaAs Versions
- High efficiency red, green, and standard red LED colors
- Resistor-adjusted brightness control

Applications
- Microprocessor Controlled Displays
- Industrial Controllers
- Medical Equipment
- Scales
- Instrumentation

Part Number Format TSM 5* 0 3 2 P

```
COLOR ──────────────┐       ┌─ PINS
  0 = Standard Red          │    P = With Pins
  2 = Green                 │
  6 = AlGaAs Red            │
  7 = High Efficiency Red   └─ NUMBER OF DIGITS
                                 2 = Two
DIGIT SIZE ─────────┘            4 = Four
  3 = 0.3"                       5 = Four Digits + Colon
  5 = 0.5"
```
*TSM5XXX and TSM6XXX have different PCB sizes—consult data book

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Smart LED Light Block with Integral Driver—TFIB5X57 Series
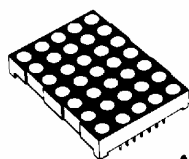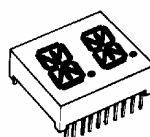
Features
- 2.0" LED 5 x 7 Dot Matrix
- Simple Interface to Large Area Signs
- No Row or Column Drivers Required
- Single Serial Bus Communicates with Multiple "Smart Light Block" units.
- Low Processor Overhead

Applications
- Scrolling Signs
- Elevators
- Time/Date/Temp. Signs
- Large Area Instrumentation

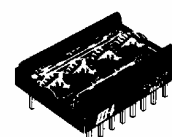| Part Number	Color
TFIB5257	Green
TFIB5357	Yellow
TFIB5657	AlGaAs Red
TFIB5757	High Efficiency Red
TFIB56257	Dual Color AlGaAs Red/Green

Alphanumeric LED Displays with On-board Drivers

TSM7X52

TSM1416   DL2416/TSM2416

TSM7X52 Series Features
- Two 0.54" Characters
- End Stackable
- Serial Data Input
- Direct Current Drive
- Low Current AlGaAs Version

DL1414, 1416, 2416 Series Features
- Compact, 16-Segment A/N Displays
- End Stackable
- Microprocessor Bus Compatible
- 64 Character ASCII Format
- Memory, decoder, multiplex drive