



**Optrex America, Inc.**



**OAI-80018AA-7602-B  
5/22/2007**

# ***Optrex Part Numbering System Description***

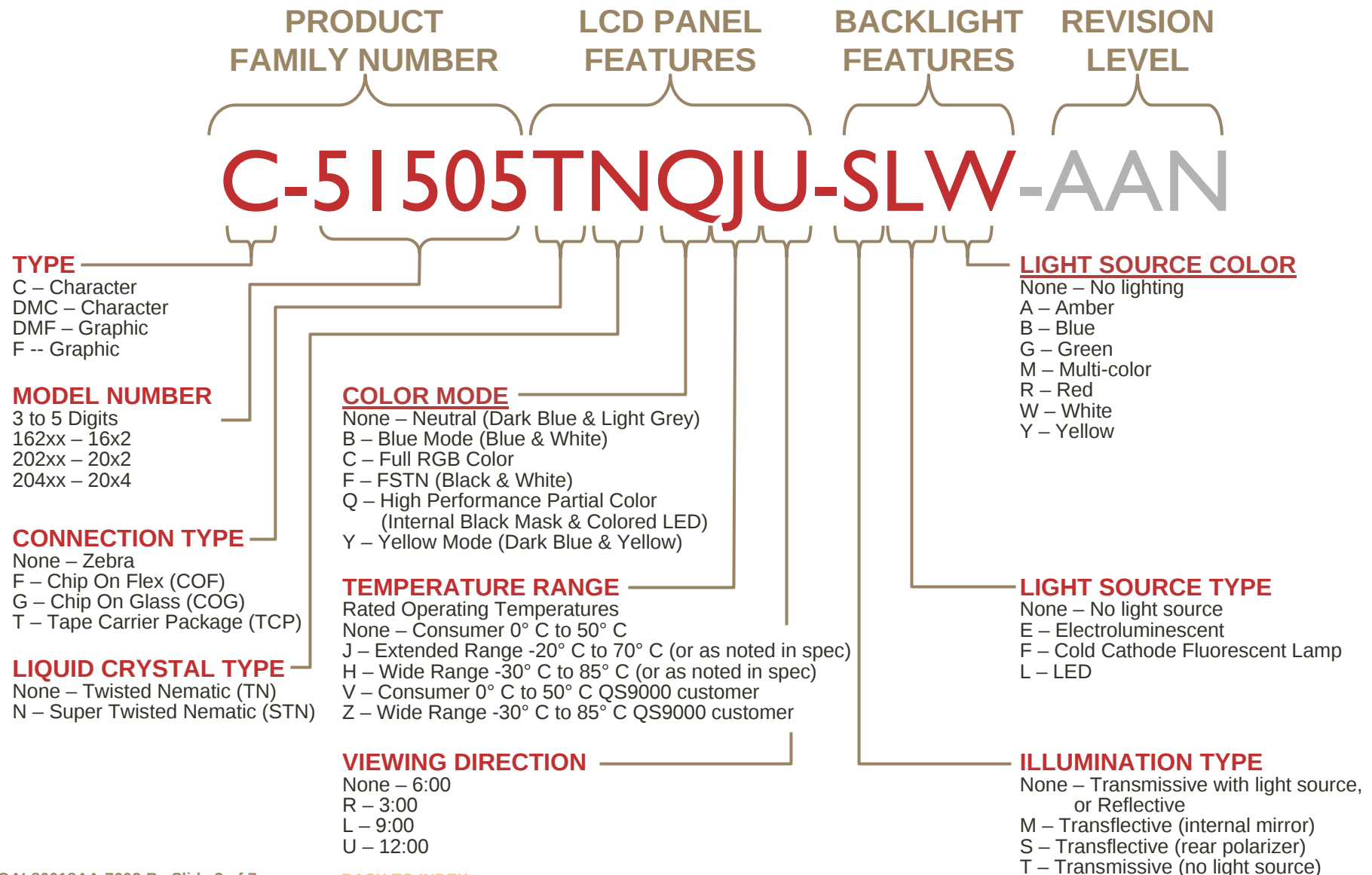


# TYPES OF DISPLAYS

- PASSIVE CHARACTER & GRAPHICS MODULE
- ACTIVE TFT MODULE

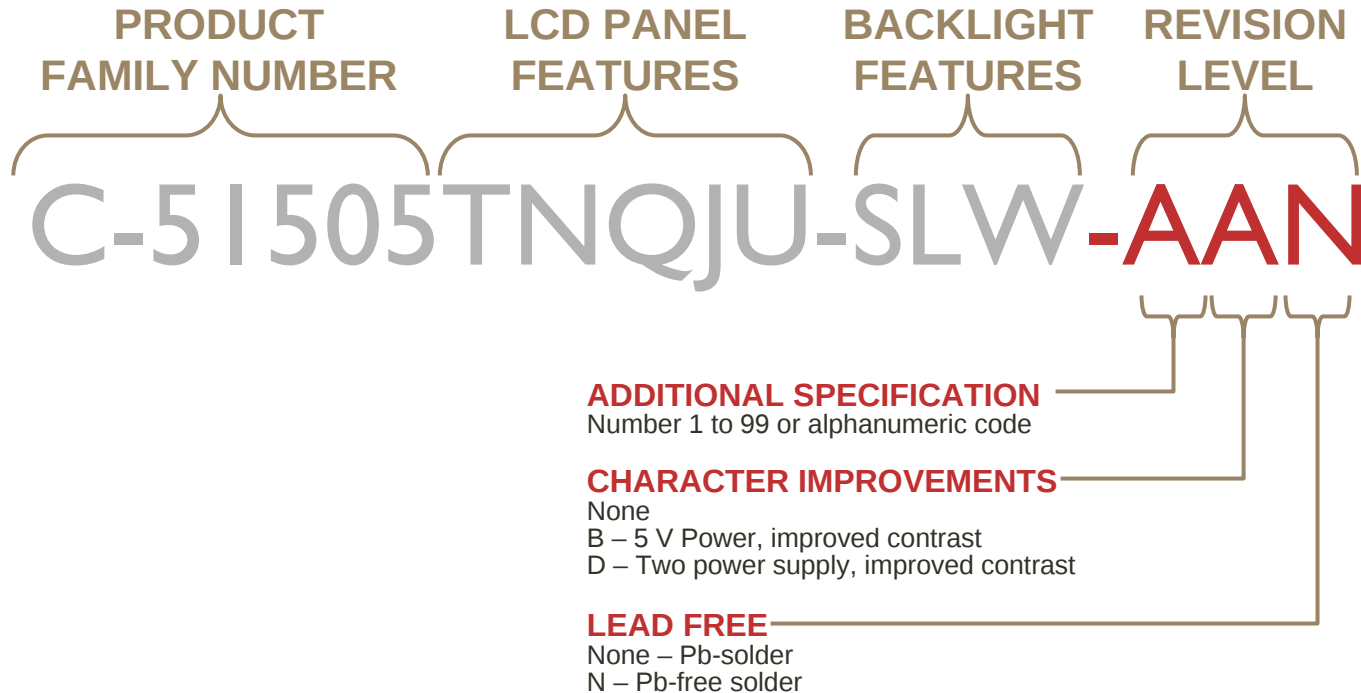


# CHARACTER & GRAPHIC MODULES





# CHARACTER & GRAPHIC MODULES



# ACTIVE MATRIX TFT MODULES

PRODUCT  
FAMILY NUMBER

LCD PANEL  
FEATURES

BACKLIGHT  
FEATURES

REVISION  
LEVEL

## T-51811GL070HU-MLW-A-ABN

### TYPE

T – TFT

### MODEL NUMBER

3 to 5 Digits

### CONNECTION TYPE

None – N/A  
F – Chip On Flex (COF)  
G – Chip On Glass (COG)  
T – COG + COF

### INTERFACE TYPE

D – Digital (CMOS or LVDS)  
L – Analog (May or may not include timing controller; see spec)

### MODULE SIZE

Diagonal Size in Tenths of Inches

### TEMPERATURE RANGE

Rated Operating Temperatures  
None – Consumer 0° C to 50° C  
J – Above consumer level. See specification.  
H – Wide Range -30° C to 85° C  
V – Consumer 0° C to 50° C QS9000 customer  
Z – Wide Range -30° C to 85° C QS9000 customer

### VIEWING DIRECTION

None – 6:00  
R – 3:00  
L – 9:00  
U – 12:00

### ILLUMINATION TYPE

None – Transmissive w/ light, or Reflective  
M – Transflective (internal mirror)  
S – Transflective (rear polarizer)  
T – Transmissive (no light source)

### LIGHT SOURCE TYPE

None – No light source  
E – Electroluminescent  
F – Cold Cathode Fluorescent Lamp  
L – LED

### REVISION LEVEL

#### LEAD FREE

None – Pb-solder  
N – Pb-free solder

#### INTERNAL NUMBER

None  
A

#### LIGHT SOURCE COLOR

None – No lighting  
W – White

# PASSIVE COLOR MODES & APPLICATIONS

**NEUTRAL MODE  
STN POSITIVE  
DATA**

**NEUTRAL MODE  
FSTN POSITIVE  
DATA**

**NEUTRAL  
MODE TN  
POSITIVE DATA**

**NEUTRAL MODE  
STN NEGATIVE  
DATA**

**NEUTRAL MODE  
FSTN NEGATIVE  
DATA**

**NEUTRAL  
MODE TN  
NEGATIVE DATA**

In these graphics, the text represents image data.

Positive data mode – image pixels are turned ON and background pixels are OFF.

Negative data mode – image pixels are OFF and the background pixels are ON.

**BLUE MODE  
STN POSITIVE  
DATA**

**YELLOW MODE  
STN POSITIVE  
DATA**

**BLUE MODE  
STN NEGATIVE  
DATA**

**YELLOW MODE  
STN NEGATIVE  
DATA**

## COLOR MODES & APPLICATIONS

| MODE                    | CHAR | GRAPHIC              |
|-------------------------|------|----------------------|
| YELLOW<br>MODE          | ✓    | INFREQUENT<br>USE    |
| BLUE<br>MODE            |      | ✓                    |
| STN<br>NEUTRAL<br>MODE  | ✓    | ✓                    |
| FSTN<br>NEUTRAL<br>MODE | ✓    | ✓                    |
| FSTN<br>HPC             | ✓    | ✓                    |
| TN<br>NEUTRAL<br>MODE   | ✓    | CUSTOM<br>AUTOMOTIVE |

# BACKLIGHT COLORS



**White Color Dot**  
F-51852GNFQJ-LW-AAN



**Green Color Dot**  
F-51852GNFQJ-LG-ACN



**Red Color Dot**  
F51852GNFQJ-LR-AGN



**Blue Color Dot**  
F-51852GNFQJ-LB-ABN



**Yellow Color Dot**  
F-51852GNFQJ-LY-ADN



**Winter White Background**  
F-51852GNFJ-SLW-AEN

“NFQ” displays use color LEDs in backlight

# Mouser Electronics

Authorized Distributor

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## Kyocera:

[T-51639D084U-FW-A-AA](#) [T-51952D065J-FW-A-ACN](#) [T-51638D084J-FW-A-AC](#) [T-51570GD022J-MLW-AGN](#) [T-55151FD084J-MFW-A-AAN](#) [T-51513D104JU-FW-A-AIN](#) [T-51513D104J-FW-A-AJN](#) [T-51513D104J-FW-A-AKN](#) [T-51512D121J-FW-A-AGN](#) [T-51512D121J-FW-A-AHN](#) [T-55196D121J-FW-A-AAN](#) [T-55196D121J-FW-A-ABN](#) [T-51756D121J-FW-A-ACN](#) [T-51756D121J-FW-A-ADN](#) [T-55225D104J-FW-A-AAN](#) [T-51963GD035J-MLW-AFN](#) [T-51963GD035J-MLW-AGN](#) [T-55313D141J-FW-A-AEN](#) [T-55596GD035JU-LW-AAN](#) [T-55399D084J-FW-A-ABN](#) [T-51952D065J-FW-A-AEN](#) [T-55149GD030J-MLW-AMN](#)