

FPD Total Solution Provider



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



TYPE
 C – Character
 DMC – Character
 DMF – Graphic
 F -- Graphic

MODEL NUMBER
 3 to 5 Digits
 162xx – 16x2
 202xx – 20x2
 204xx – 20x4

CONNECTION TYPE
 None – Zebra
 F – Chip On Flex (COF)
 G – Chip On Glass (COG)
 T – Tape Carrier Package (TCP)

LIQUID CRYSTAL TYPE
 None – Twisted Nematic (TN)
 N – Super Twisted Nematic (STN)

COLOR MODE
 None – Neutral (Dark Blue & Light Grey)
 B – Blue Mode (Blue & White)
 C – Full RGB Color
 F – FSTN (Black & White)
 Q – High Performance Partial Color (Internal Black Mask & Colored LED)
 Y – Yellow Mode (Dark Blue & Yellow)

TEMPERATURE RANGE
 Rated Operating Temperatures
 None – Consumer 0° C to 50° C
 J – Extended Range -20° C to 70° C (or as noted in spec)
 H – Wide Range -30° C to 85° C (or as noted in spec)
 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

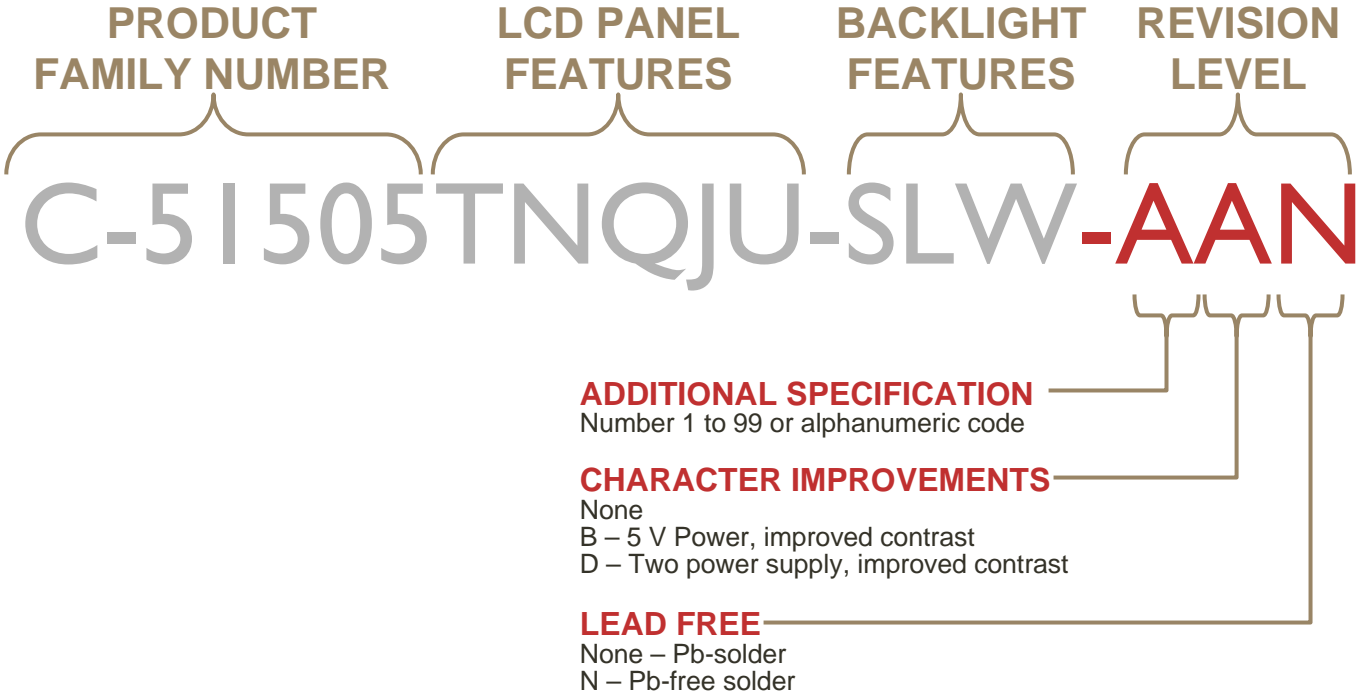
LIGHT SOURCE COLOR
 None – No lighting
 A – Amber
 B – Blue
 G – Green
 M – Multi-color
 R – Red
 W – White
 Y – Yellow

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

ILLUMINATION TYPE
 None – Transmissive with light source, or Reflective
 M – Transflective (internal mirror)
 S – Transflective (rear polarizer)
 T – Transmissive (no light source)



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 MODE	✓	INFREQUENT USE
BLUE MODE		✓
STN NEUTRAL MODE	✓	✓
FSTN NEUTRAL MODE	✓	✓
FSTN HPC	✓	✓
TN NEUTRAL MODE	✓	CUSTOM 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