



QLIR05BYAM
PLCC4 850nm



Product Outline:

This is PLCC-4 series with high output reflector type 3528 LEDs are available in Infrared Emitter. With special binning technology, Quelighting is able to provide special binning for customer's needs

Features:

- High brightness output @ 100mA
- Package Dimension = 3.5mmX2.8mmX1.9mm
- PLCC-4 850nm LED
- RoHS compliant
- Custom Bin available upon special request

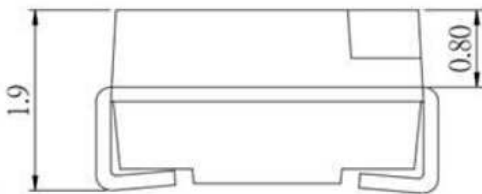
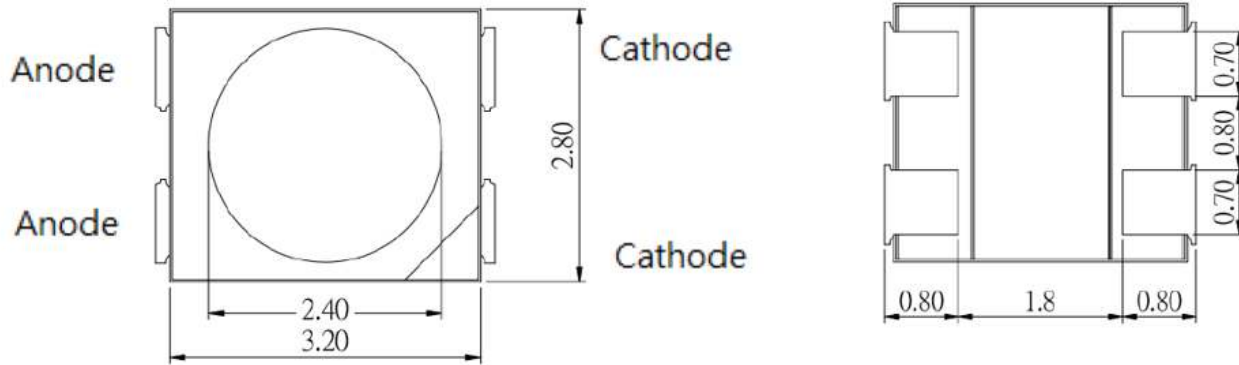
Application:

- Mechanically and spectrally matched to the phototransistor
- Infrared Illumination for cameras
- Sensor technology
- Gesture Recognition
- Surveillance

Compliance and Certification:

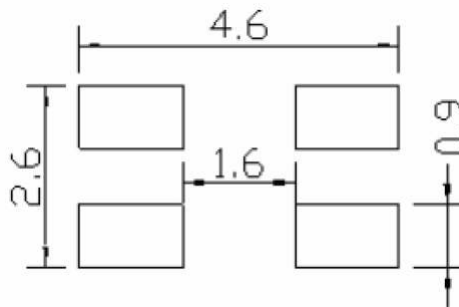


**Mechanical Property:
(Dimension)**



Units: mm

Recommended Solder footprint:



Units: mm



Electrical / Optical Characteristic

(T=25°C)

| Product | Color | I _F (mA) | V _F (V) | | λ _p (nm) | | | I _v (mW) | |
|------------|----------|---------------------|--------------------|-----|---------------------|------|------|---------------------|------|
| | | | Typ. | max | Min. | Typ. | Max. | min | typ. |
| QLIR05BYAM | Infrared | 100 | 1.5 | 2.0 | | 850 | | 10 | 18 |

- (1) The Forward Voltage tolerance is $\pm 0.1V$
- (2) The λD tolerance is $\pm 1nm$
- (3) The I_v tolerance is $\pm 7\%$

Absolute Maximum Rating

(T=25°C)

| Part # | P _d (mW) | I _F (mA) | I _{FP} (mA)* | V _R (V) | T _{OP} (°C) | T _{ST} (°C) | T _{SOL} (°C)** |
|----------|---------------------|---------------------|-----------------------|--------------------|----------------------|----------------------|-------------------------|
| Infrared | 200 | 100 | 100 | 5 | -40 – 85 | -40 - 100 | 260 |

*Duty 1/10 @ 10Khz

** Junction Temperature

*** IR Reflow for no more than 10 sec @ 260 °C

**** Thermal resistance is calculated from junction to solder

Forward Voltage (V_F) Bin:

| VF rank @ 100mA | | | |
|-----------------|------|------|------|
| Code name | Min. | Max. | Unit |
| L6 | 1.4 | 2.0 | V |

The forward voltage tolerance is $\pm 0.1V$

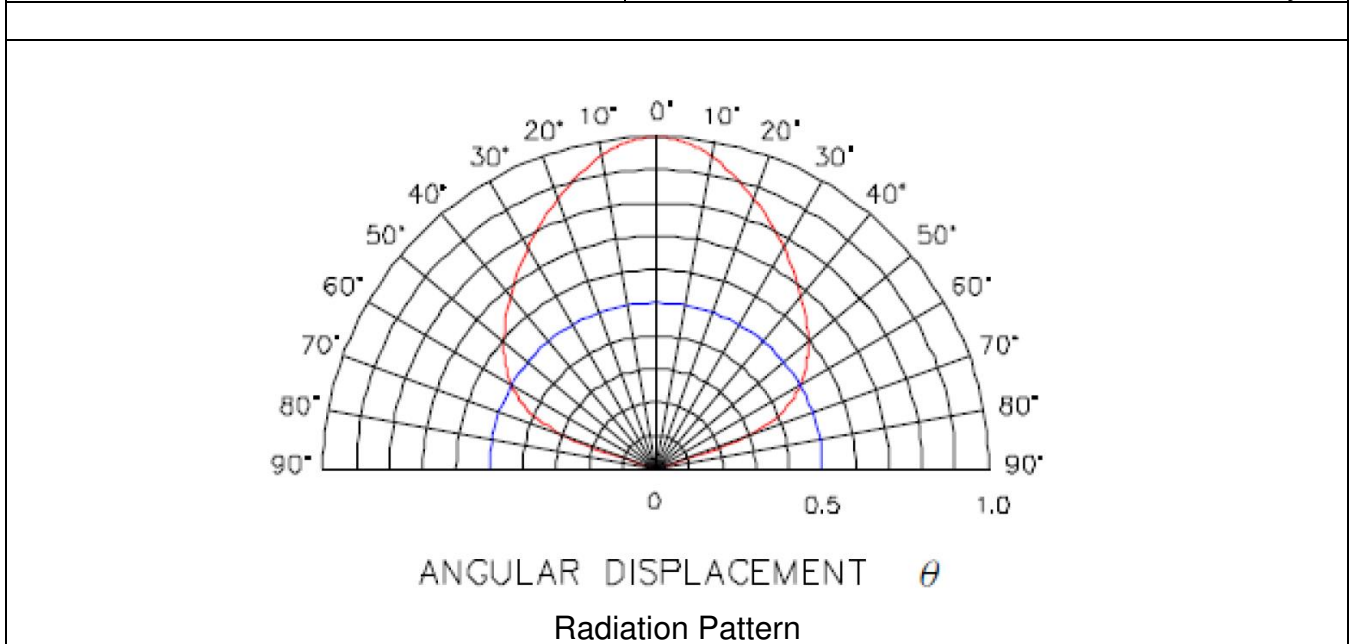
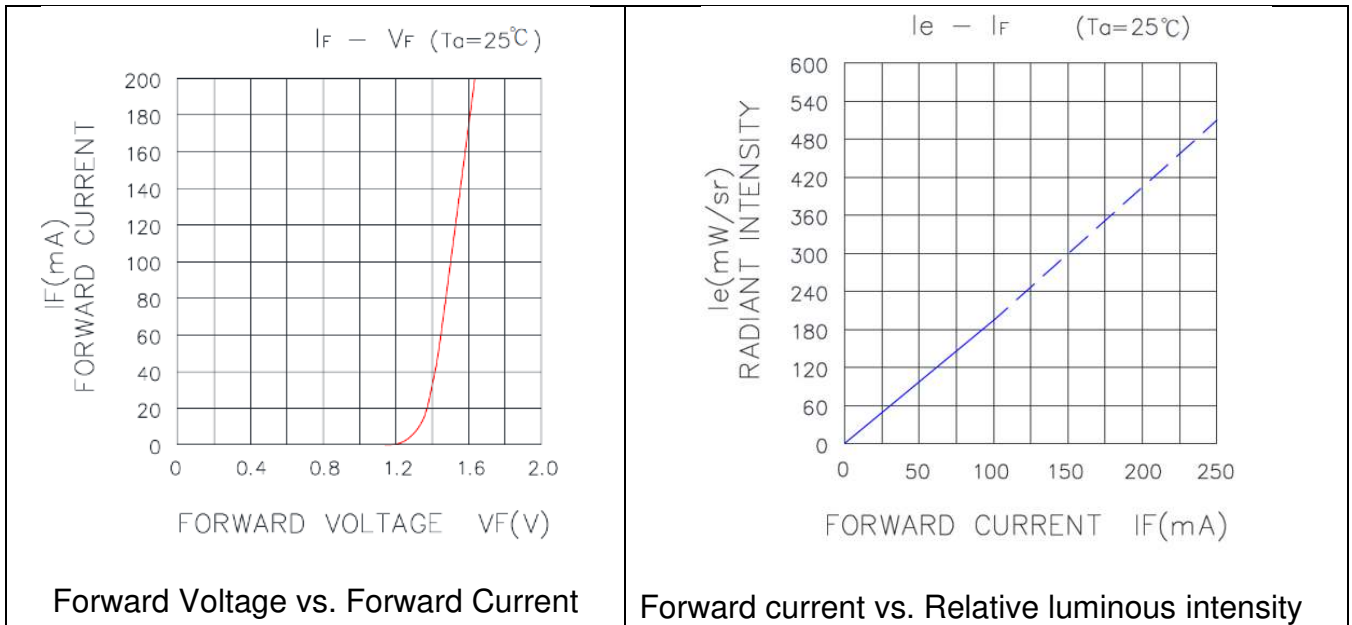
Radiant Intensity Bin:

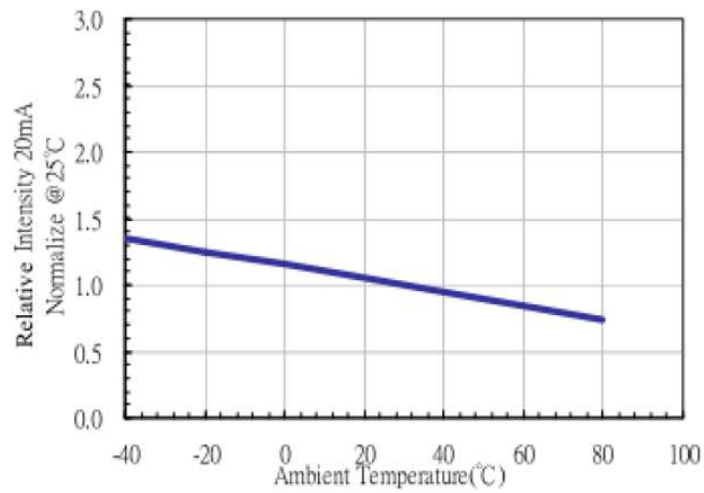
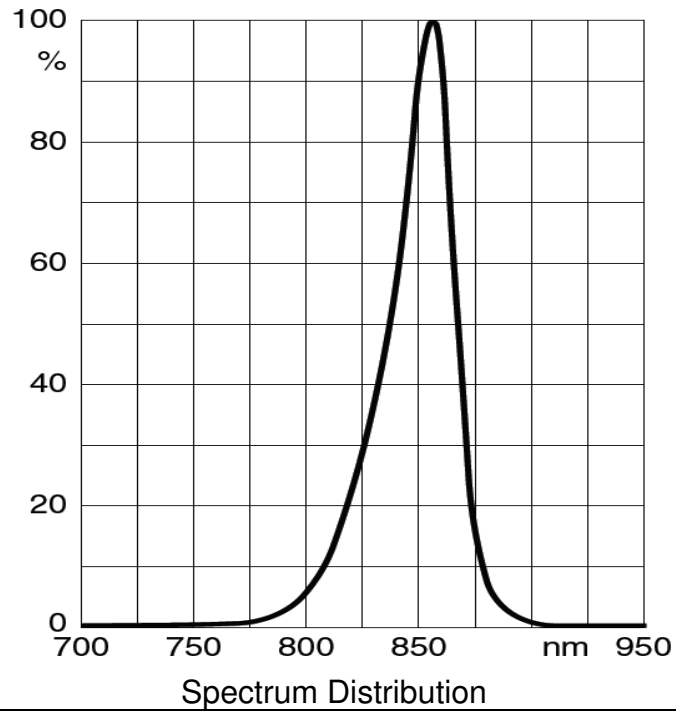
| Po (mW/sr) rank @ 100mA | | | |
|-------------------------|------|------|------|
| Code name | Min. | Max. | Unit |
| P0010 | 10 | 20 | mW |
| P0020 | 20 | 30 | |

luminous intensity tolerance is $\pm 7\%$



Characteristic Curves

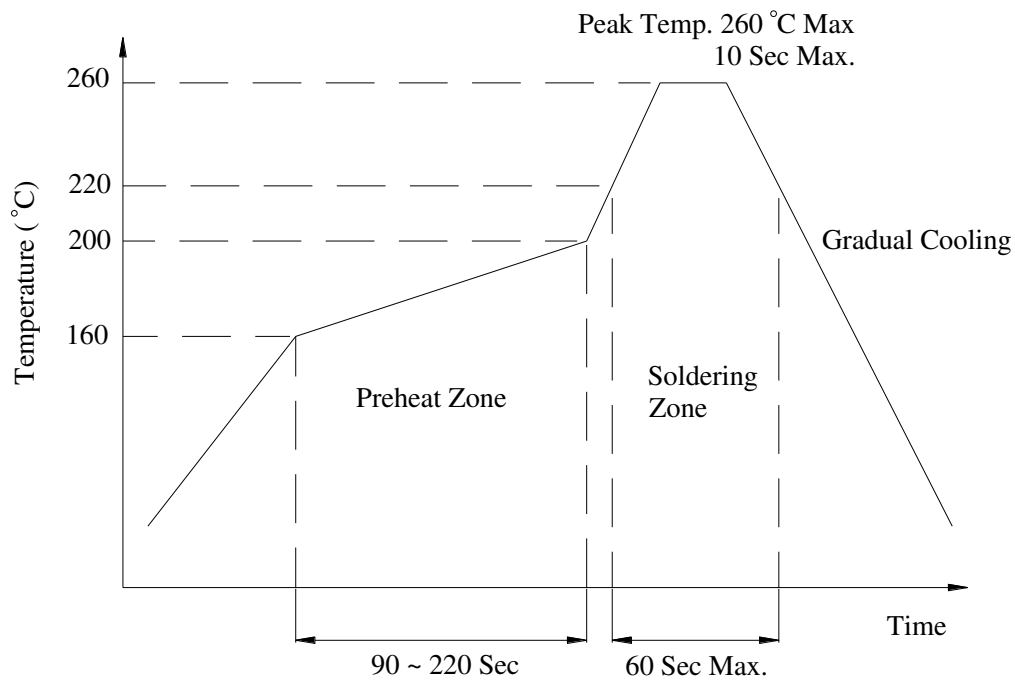




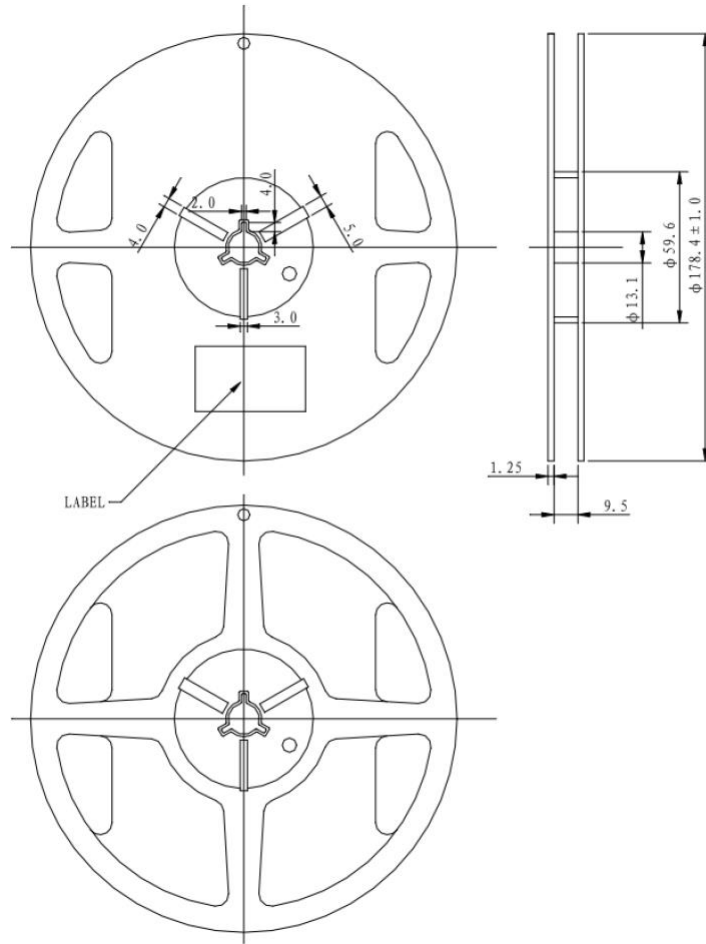
Solder Profile:

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):

- When soldering LEDs,
- Do not solder/reflow the same LED over two times.
- Recommend soldering conditions:
 - Hand soldering: 300 °C max , 3 sec. max.
 - Reflow soldering: Pre-heat 150 max , 180 sec. max. °C
 - Peak 260 ma °C x , 5 sec. max.
- Reflow temperature profile as below: (lead-free solder)

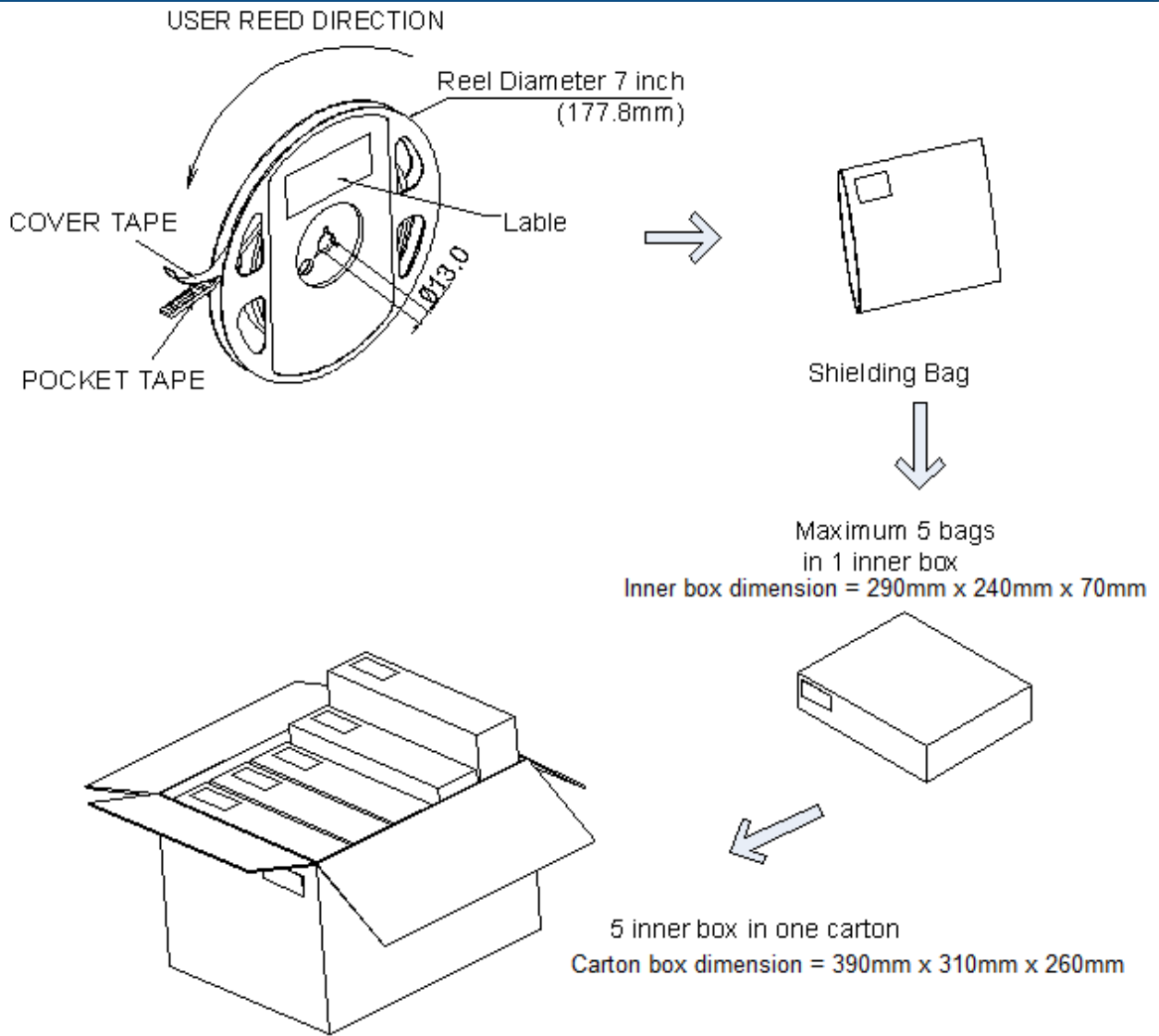


Taping & Packing:

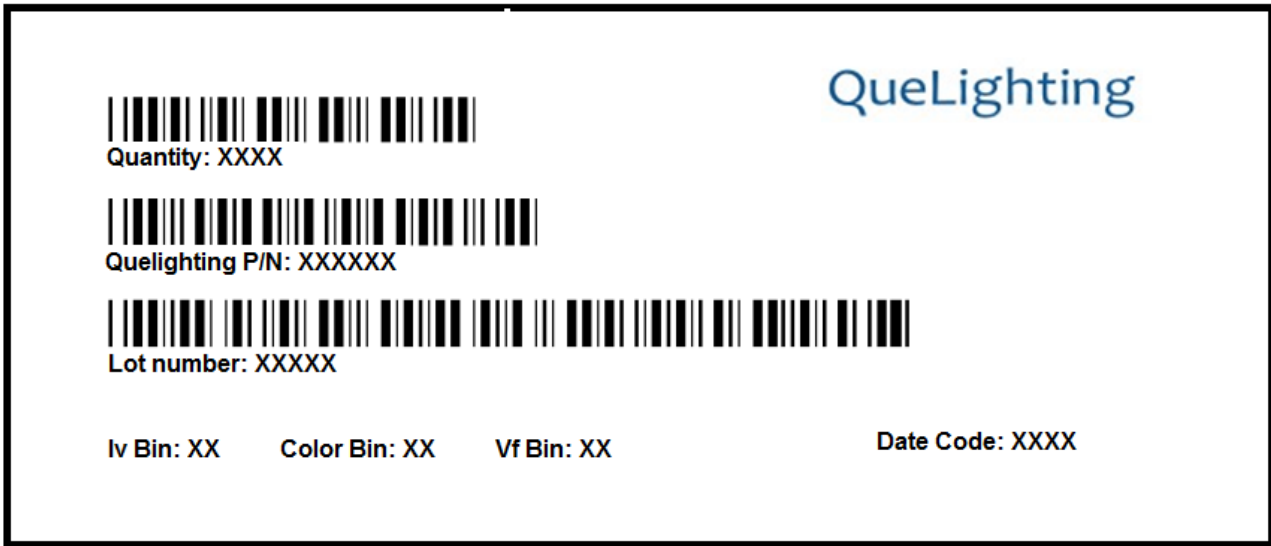


Unit : mm





Labeling



Ordering Information:

| Part # | Multiple Quantities | Quantity per Reel |
|------------|---------------------|-------------------|
| QLIR05BYAM | | 1000pcs, 2000 pcs |
| | | |
| | | |



Revision History:

| Revision Date: | Changes: | Version #: |
|----------------|-----------------|------------|
| 08-05-2020 | Initial release | 1.0 |
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