



MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

0.8mm Height Flat Top LEDs

ECN : Page: 1/8

Features :

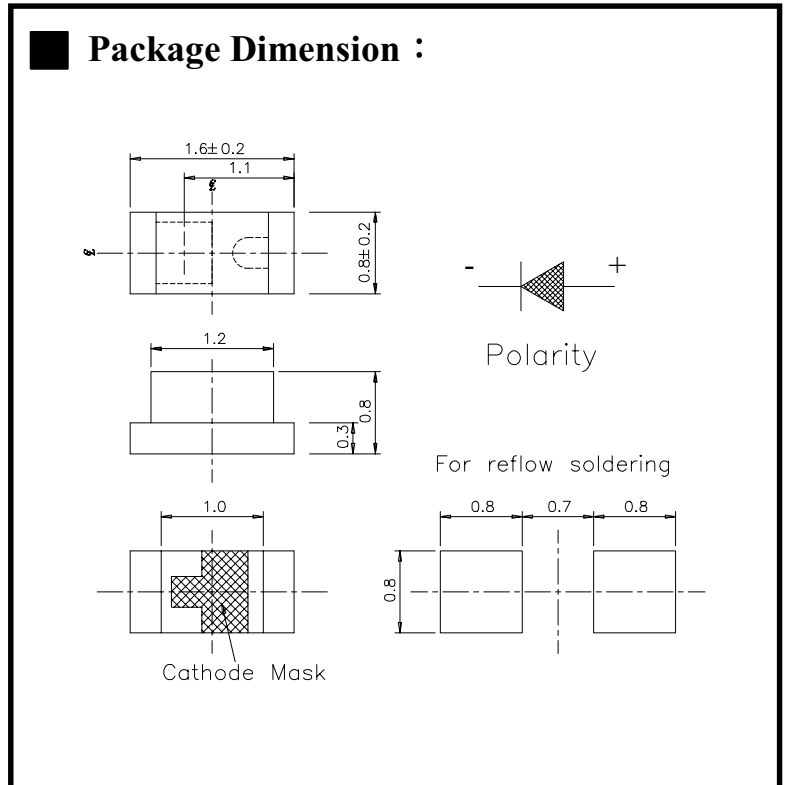
- Package in 8mm tape on 7" diameter reel .
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- Mono-color type.

Description :

- The 19-21 SMD Taping is much smaller than leaded components, thus enable smaller board size, higher packing density, reduced storage space and finally smaller equipment to be obtained.
- Besides, light Weight makes them ideal for miniature application, etc.

Applications :

- Automotive: backlighting in dashboard and switch.
- Telecommunication: indicator and backlighting in telephone and fax.
- Flat backlight for LCD, switch and symbol.
- General use.



Notes :

Tolerances Unless Dimension ±  
 0.1mm  
 Angle± 0.5°

PART NO	CHIP		Lens Color
	Material	Emitted Color	
19-21VYC/TR8	GaAsP/GaP	Yellow	Water Clear

Office: NO. 25, Lane 76, Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.

TEL: 886-2-2267-2000, 2267-9936

FAX: 886-2-2267-6244, 2267-6189, 2267-6306

http://www.everlight.com



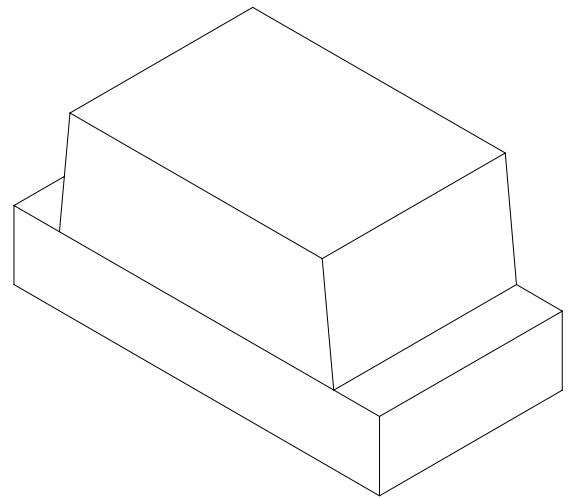
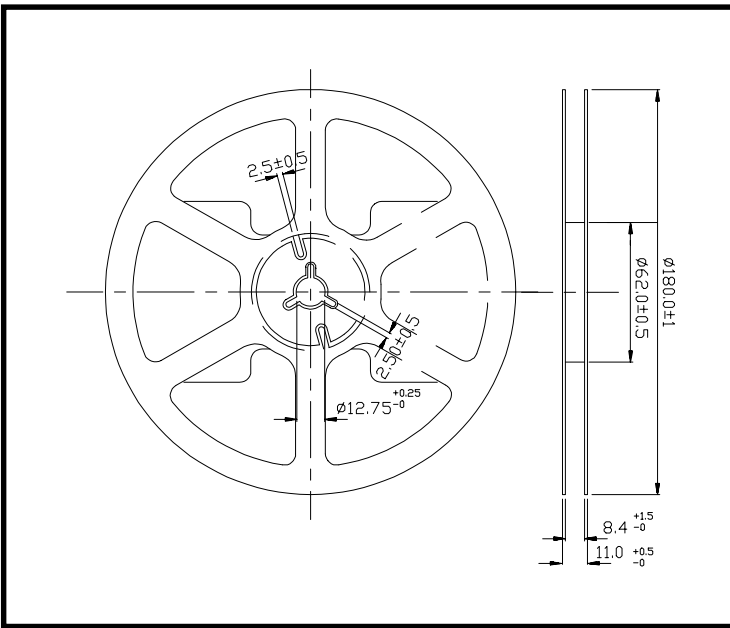
MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

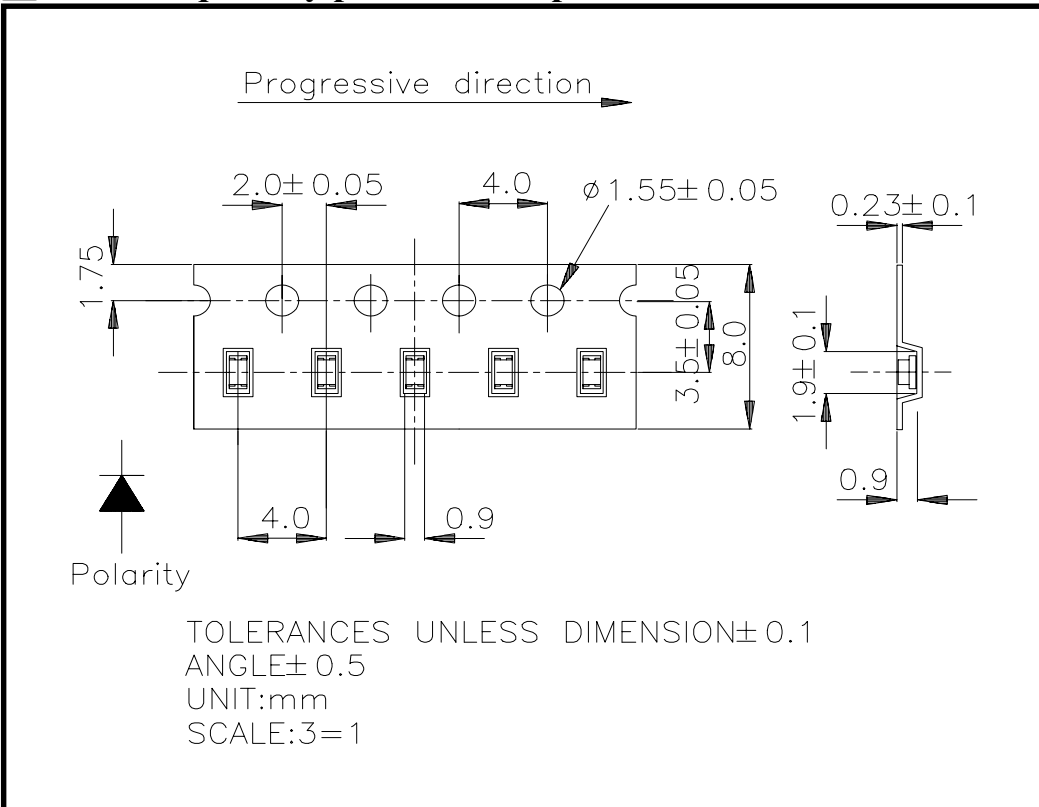
**0.8mm Height Flat Top LEDs**

ECN : \_\_\_\_\_ Page: 2/8

■ **Package Dimension :**



■ **Loaded quantity per reel 3000 pcs/reel :**





MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

**0.8mm Height Flat Top LEDs**

ECN : \_\_\_\_\_ Page: 3/8

■ **Absolute Maximum Ratings at Ta = 25°C**

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	30	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +90	°C
Soldering Temperature	Tsol	260 (for 5 second)	°C
Power Dissipation	Pd	100	MW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	160	MA

■ **Electronic Optical Characteristics :**

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous intensity	Iv	2.5	4.0	-----	mcd	If=20mA
Viewing Angle	2θ 1/2	-----	100	-----	deg	If=20mA
Peak Wavelength	λ p	-----	585	-----	nm	If=20mA
Dominant Wavelength	λ d	-----	590	-----	nm	If=20mA
Spectrum Radiation Bandwidth	Δ λ	-----	35	-----	nm	If=20mA
Forward Voltage	Vf	1.7	2.0	2.6	V	If=20mA
Reverse Current	Ir	-----	-----	10	μ A	Vr=5V



MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

**0.8mm Height Flat Top LEDs**

ECN : \_\_\_\_\_ Page: 4/8

**Reliability Test Item And Condition**

NO	Item	Test Conditions	Test Hours/Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 SEC	76 Pcs	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLE	76 Pcs	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	76 Pcs	0/1
4	High Temperature Storage	TEMP : 100°C	1000 HRS	76 Pcs	0/1
5	Low Temperature Storage	TEMP : -55°C	1000 HRS	76 Pcs	0/1
6	DC Operating Life	If = 20 mA	1000 HRS	76 Pcs	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 Pcs	0/1



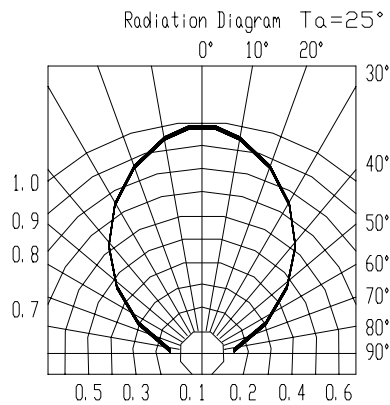
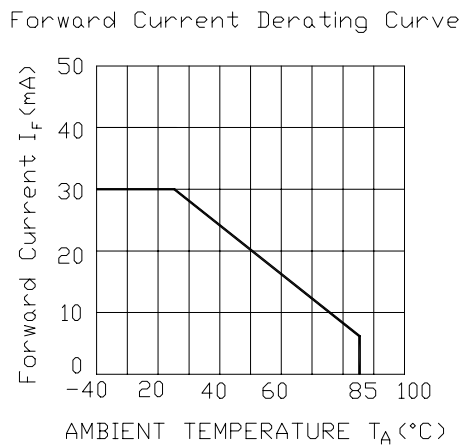
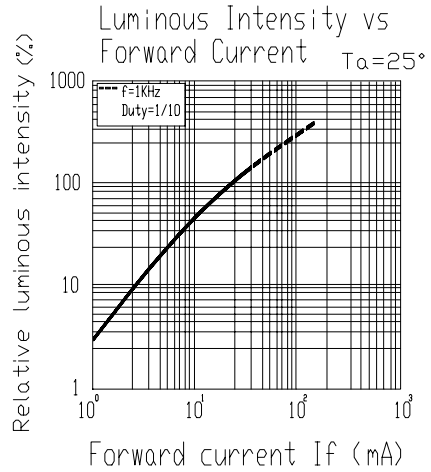
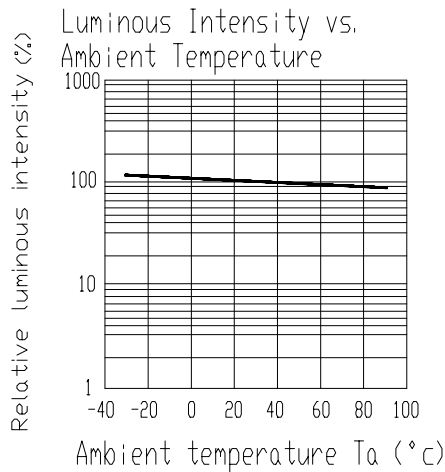
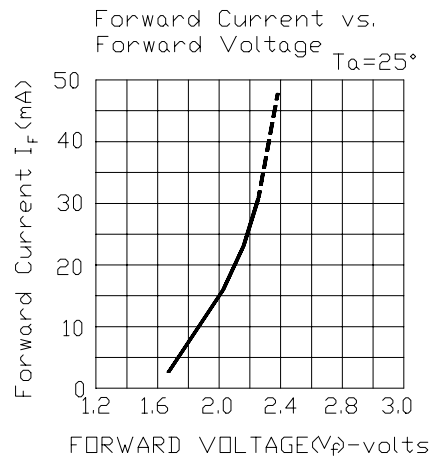
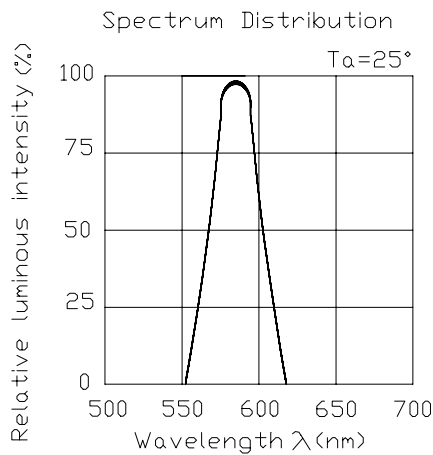
MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

**0.8mm Height Flat Top LEDs**

ECN : \_\_\_\_\_ Page: 5/8

■ **Typical Electro-Optical Characteristic Curves**





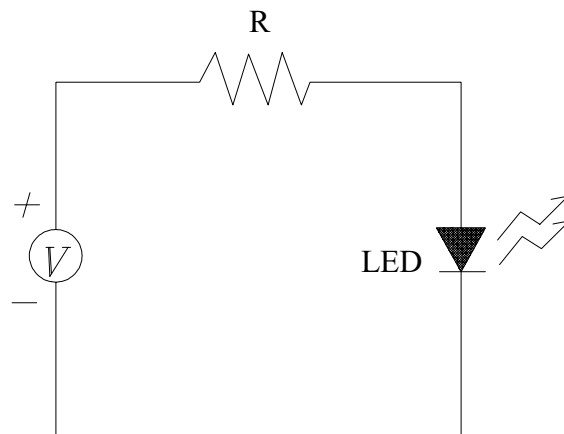
MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

**0.8mm Height Flat Top LEDs**

ECN : ..... Page: 6/8

### ■ Test Circuit



### ■ Precautions For Use

#### 1. Over-current-proof

Customer must apply resistors for protection , otherwise slight voltage shift will cause big current change ( Burn out will happen ).

#### 2. Storage time

2.1 The operation of temperature and R.H. are :  $5^{\circ}\text{C}\sim 35^{\circ}\text{C}$  , R.H.60%.

2.2 Once the package is opened , the products should be used within a week.

Otherwise , they should be keep in a dampproof box with desiccants.

Considering the tape life , we suggest our customers to use our products within a year(from production date).

2.3 If opened more than one week in an atmosphere  $5^{\circ}\text{C}\sim 35^{\circ}\text{C}$  , R.H.60% , they should be treated at  $60^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for 15hrs.

2.4 When you discover that the desiccant in the package has a pink color (normal=blue) , you should treat them in the same conditions as 2.3.

MODEL NO: 19-21VYC/TR8

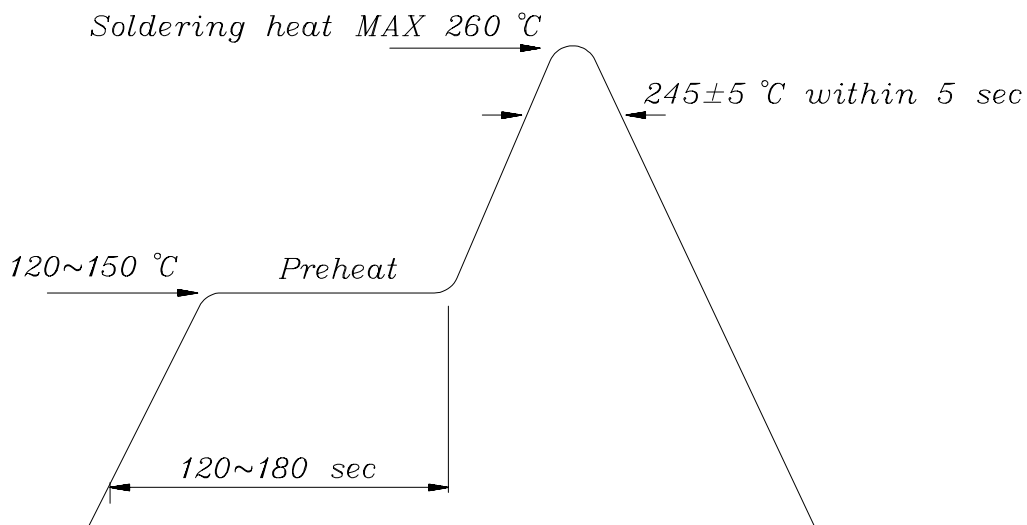
Device Number : DSE-191-003 REV. 1.1

**0.8mm Height Flat Top LEDs**

ECN : \_\_\_\_\_ Page: 7/8

■ **Soldering heat reliability ( DIP )**

Please refer to the following figure :

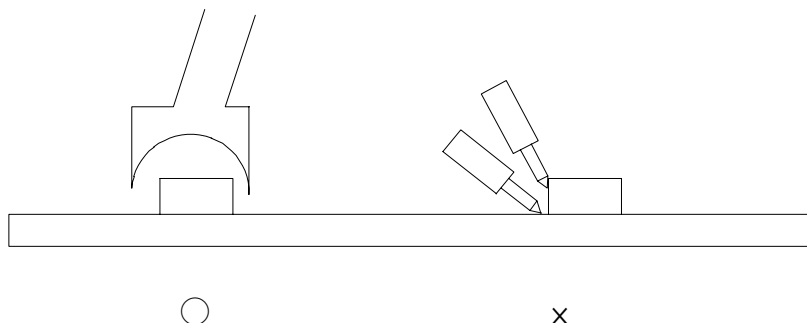


■ **Soldering Iron**

Basic spec is  $\leq 5$  sec when  $260^{\circ}\text{C}$ . If temperature is higher, time should be shorter ( $+10^{\circ}\text{C} \rightarrow -1\text{sec}$ ). Power dissipation of iron should be smaller than 15 W , and temperature should be controllable. Surface temperature of the device should be under  $230^{\circ}\text{C}$ .

■ **Rework**

1. Customer must finish rework within 5 sec under  $260^{\circ}\text{C}$ .
2. Copper foil can not be touched by the head of iron.
3. Twin-head type is preferred.





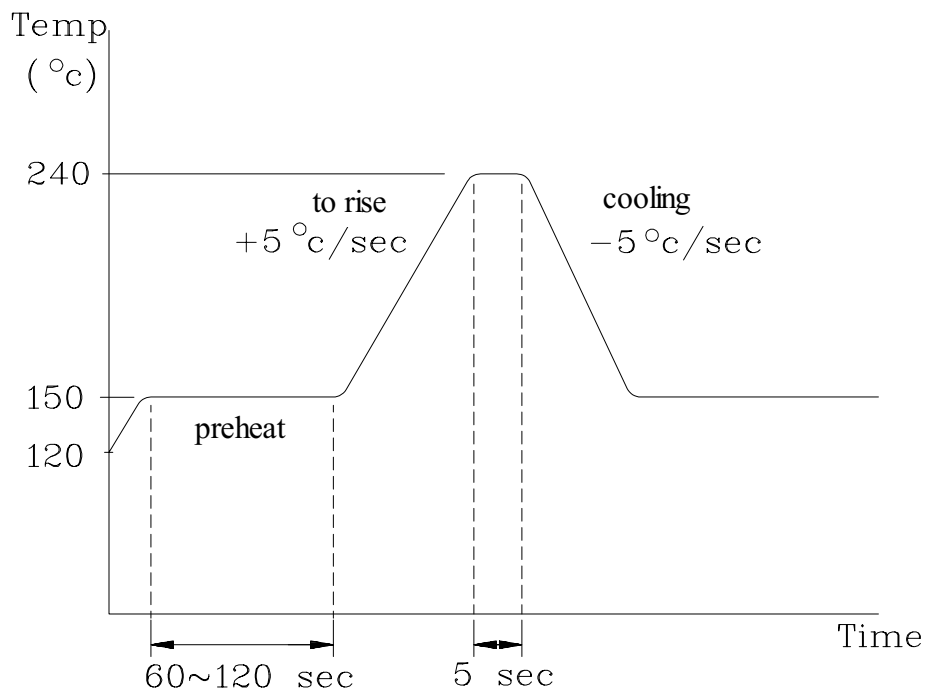
MODEL NO: 19-21VYC/TR8

Device Number : DSE-191-003 REV. 1.1

**0.8mm Height Flat Top LEDs**

ECN : ..... Page: 8/8

■ Reflow Temp / Time :





## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

*Click to view similar products for [Standard LEDs - SMD category](#):*

*Click to view products by [Everlight manufacturer](#):*

Other Similar products are found below :

[LTST-C190KYKT](#) [LTST-C19GD2WT](#) [LTST-N683GBEW](#) [LTW-170ZDC](#) [LTW-M140SZS40](#) [598-8110-100F](#) [598-8170-100F](#) [598-8610-202F](#) [AAAF5060QBFSEEZGS](#) [HLMA-QG00-S0021](#) [ALMD-LB36-SV002](#) [APT1608QGW](#) [EAST2012YA0](#) [EASV1803BA0](#) [LG M67K-H1J2-24-0-2-R18-Z](#) [SML-512VWT86A](#) [SML-LX0606SISUGC/A](#) [SML-LXL1307SRC-TR](#) [SML-LXR851SIUPGUBC](#) [LT1ED53A](#) [AM27ZGC03](#) [APB3025SGNC](#) [APFA3010SURKCGKQBDC](#) [APHK1608VGCA](#) [APT2012QGW](#) [CLX6D-FKB-CN1R1H1BB7D3D3](#) [LTST-008BGEW](#) [LTST-C250KGKT](#) [LTW-010DCG](#) [LTW-020ZDCG](#) [LTW-21TS5](#) [LTW-220DS5](#) [598-8330-117F](#) [SML-LX0402IC-TR](#) [CMDA20AYAA7D1S](#) [CMDA16AYDR7A1X](#) [91-21SYGD/S530-E2/TR7](#) [598-8040-100F](#) [598-8070-100F](#) [598-8140-100F](#) [598-8610-200F](#) [EAST2012GA0](#) [SML-LXL1209SYC/ATR](#) [EAST2012RA0](#) [EAST1608RGBAO](#) [CMD91-21VRC/TR7](#) [SML-LXR851SGSIC-TR](#) [SML-512PWT86A](#) [SMF-2432GYC-TR](#) [HSMQ-C197](#)