

MODEL No. **NJR2841L, NJR2842L, & NJR2843L** series

< **Features** >

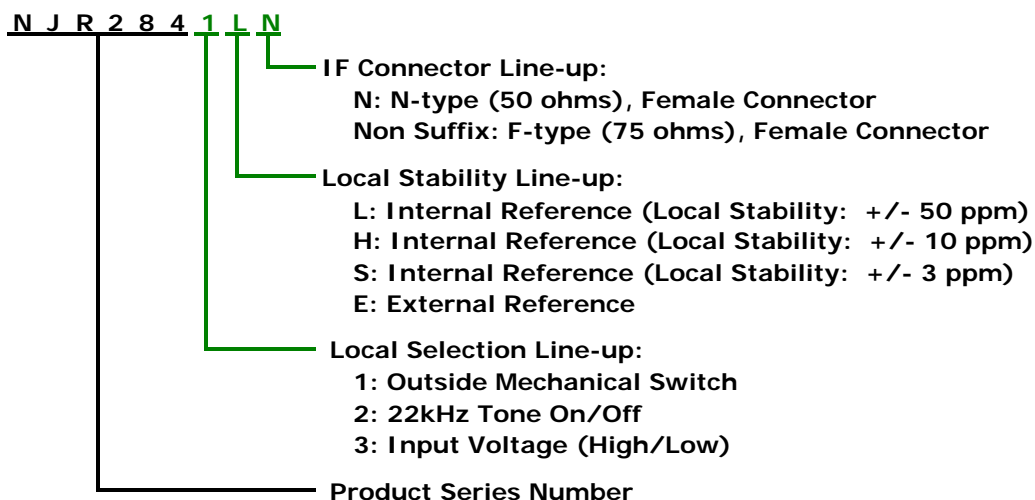
- \* **Switchable Local**
  - Local Frequency: 9.75 / 10.6 GHz
- \* **Full Ku-band Coverage**
  - RF Frequency: 10.70 – 12.75 GHz  
(Low Band) 10.70 – 11.70 GHz  
(High Band) 11.70 – 12.75 GHz
- \* **Local Switching Line-up**  
Local Frequency Selected by
  - Mechanical Switch: NJR2841 series
  - 22kHz Tone On/Off: NJR2842 series
  - Input Voltage (High/Low): NJR2843 series
- \* **Small Size & Light Weight**
  - Weight: 240 g (N-type Connector Model)
  - Weight: 210 g (F-type Connector Model)
- \* **RoHS Compliance**



< **Line-Up** >

| Model No. | RF Frequency                               | Local Frequency        | IF Frequency                             | Local Stability [-40 to +60 °C] | Local Frequency Selected by | IF Connector |
|-----------|--|------------------------|--|---------------------------------|-----------------------------|--------------|
| NJR2841L  | 10.70 to 11.70 GHz<br>/ 11.70 to 12.75 GHz | 9.75 GHz<br>/ 10.6 GHz | 950 to 1,950 MHz<br>/ 1,100 to 2,150 MHz | +/- 50 ppm                      | Mechanical Switch           | F-type       |
| NJR2841LN |  |                        |  |                                 |                             | N-type       |
| NJR2842L  |  |                        |  |                                 | 22kHz Tone On/Off           | F-type       |
| NJR2842LN |  |                        |  |                                 |                             | N-type       |
| NJR2843L  |  |                        |  |                                 | Input Voltage (High/Low)    | F-type       |
| NJR2843LN |  |                        |  |                                 |                             | N-type       |

**Model Numbering**





\*Note: The contents of this sheet are subject to change without notice.

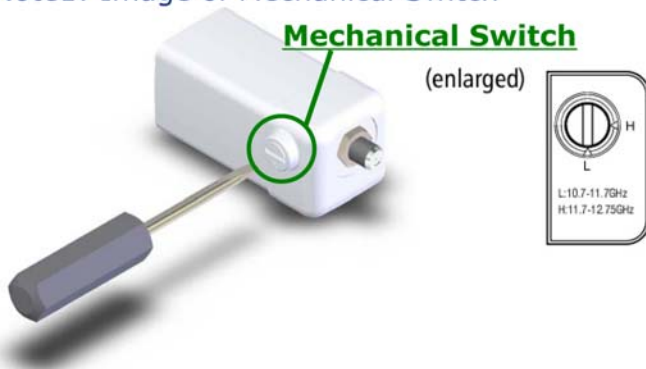
< **Specifications** >

| Item  | Specifications  |
|---|---|
| Input Interface   | Waveguide, WR75 (with Groove)   |
| Output Interface  | N-type, female (50 ohm) [Model No.: NJR2841LN/42LN/43LN]<br>F-type, female (75 ohm) [Model No.: NJR2841L/42L/43L]   |
| Noise Figure at +25 °C                                  | 0.8 dB typ., 1.0 dB max.  |
| Linear Gain (Ta.: +25 °C)                               | 48 dB min., 62 dB max.  |
| L.O. Phase Noise  | -50 dBc/Hz typ. @ 100 Hz, -70 dBc/Hz typ. @ 1 kHz<br>-75 dBc/Hz typ. @ 10 kHz, -85 dBc/Hz typ. @ 100 kHz<br>Depends on phase noise of external reference  |
| L.O. Leakage Level                                      | -40 dBm max. at the IF Output Connector<br>-60 dBm max. at the RF Input Flange  |
| Spurious  | a) -120 dBm max.<br>at input, fixed frequency spur, unrelated to test CW signal (Measured at specified IF band).<br>b) -40 dBc typ.<br>with test CW signal -10 dBm IF output (Measured at specified IF band).           |
| Input V.S.W.R.  | 2.5 : 1 typ.  |
| Output V.S.W.R.   | 2.3 : 1 max.  |
| Power Requirement                                       | +24 VDC (+10 to +24 VDC)  |
| Current Drain   | 200 mA max.   |
| Temperature Range (ambient)                             | -40 to +60 °C (operating), -40 to +80 °C (storage)  |
| Waterproof/Dustproof (IP Code)                          | IP 67   |
| Dimension & Housing<br>( without Interface Connectors ) | 83.4 mm (L) x 42 mm (W) x 42 mm (H) [Model No.: NJR2841L/41LN]<br>[3.28" (L) x 1.65" (W) x 1.65" (H)]<br>82.2 mm (L) x 40 mm (W) x 40 mm (H) [Model No.: NJR2842L/42LN/43L/43LN]<br>[3.24" (L) x 1.57" (W) x 1.57" (H)] |
| Weight  | 240 g [0.53 lbs] [Model No.: NJR2841LN/42LN/43LN]<br>210 g [0.46 lbs] [Model No.: NJR2841L/42L/43L]   |

**Specifications of Local Switch**

|                        | RF Frequency  |   |
|------------------------|---|---|
|                        | Low Band (10.7 to 11.7 GHz)   | High Band (11.7 to 12.75 GHz)   |
| Mechanical Switch      | Initial Set  |  |
| 22kHz Tone On/Off      | Tone Level: 0 to 0.2 Vp-p   | Tone Level: 0.4 to 0.8 Vp-p   |
| Input Voltage High/Low | Voltage: +10 to +14 VDC   | Voltage: +15.5 to +24 VDC   |

Note1: Image of Mechanical Switch

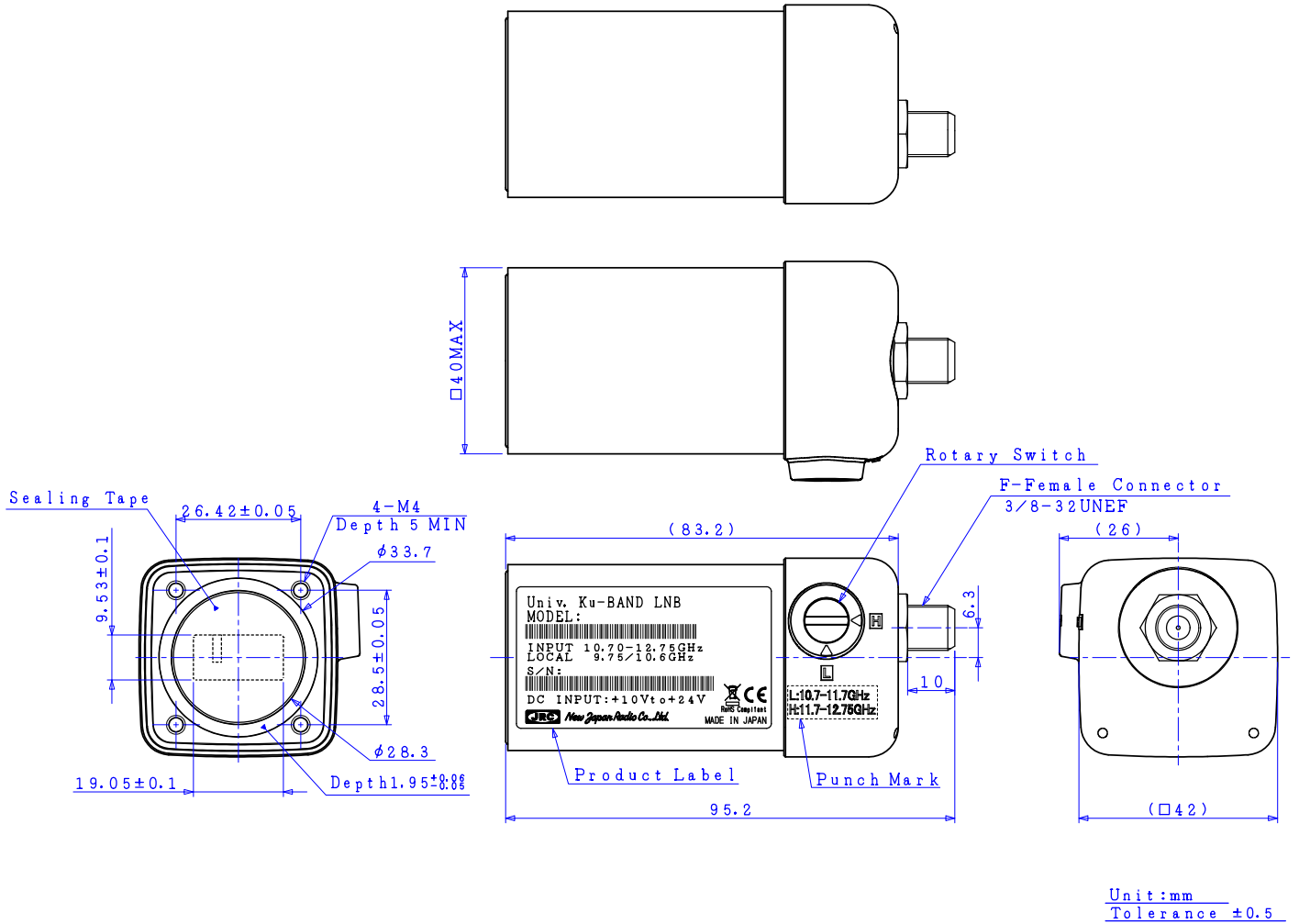


Note2: Specification of 22 kHz Tone

Input Port: IF Output Connector  
(Combine DC Supply with IF Signal)  
Wave Form: Square-wave  
Frequency: 22 +/- 4 kHz  
Duty Cycle: 30 to 70 %

< **Outline Drawing** >

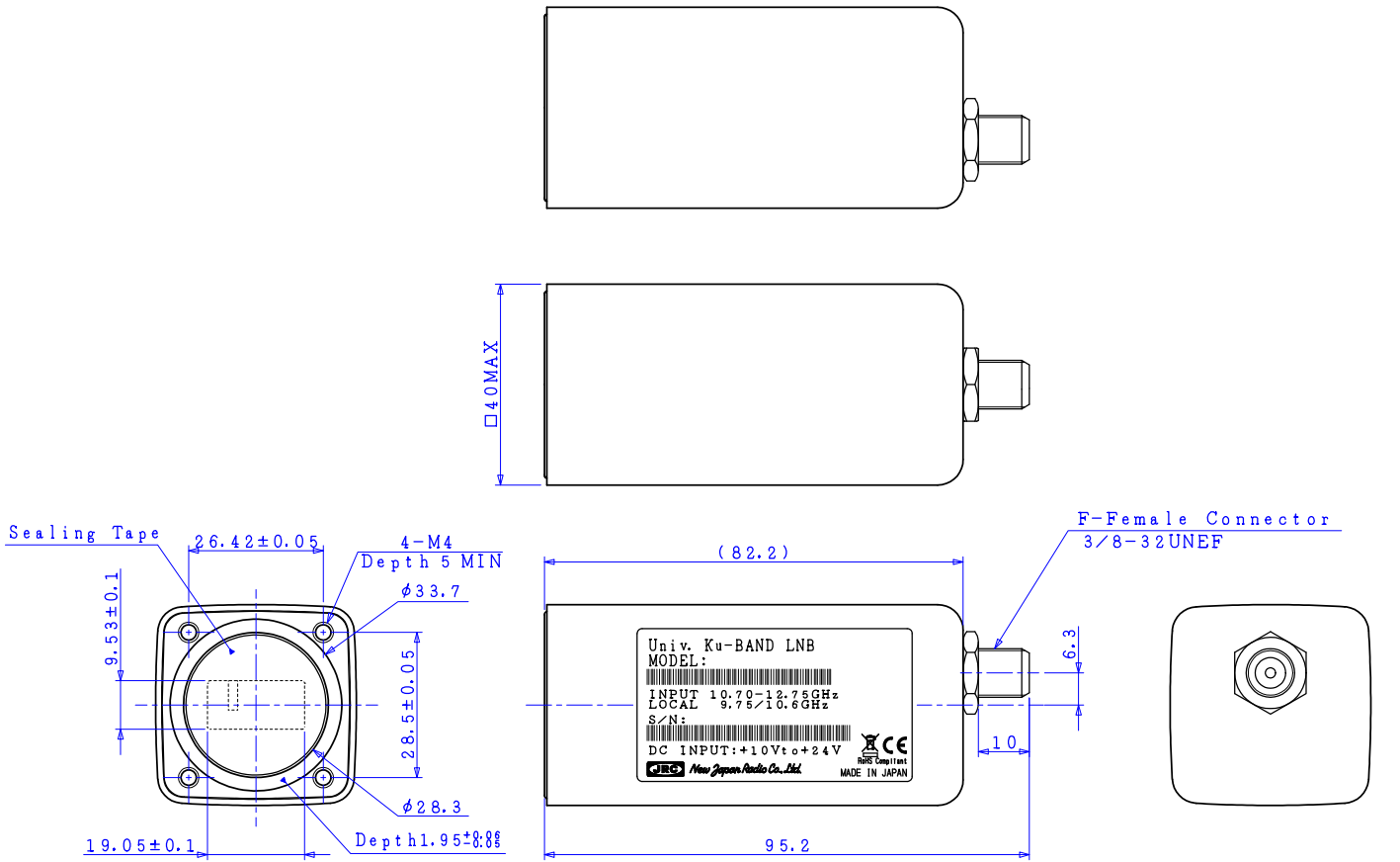
**NJR2841L**



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< **Outline Drawing** >

**NJR2842L & NJR2843L**

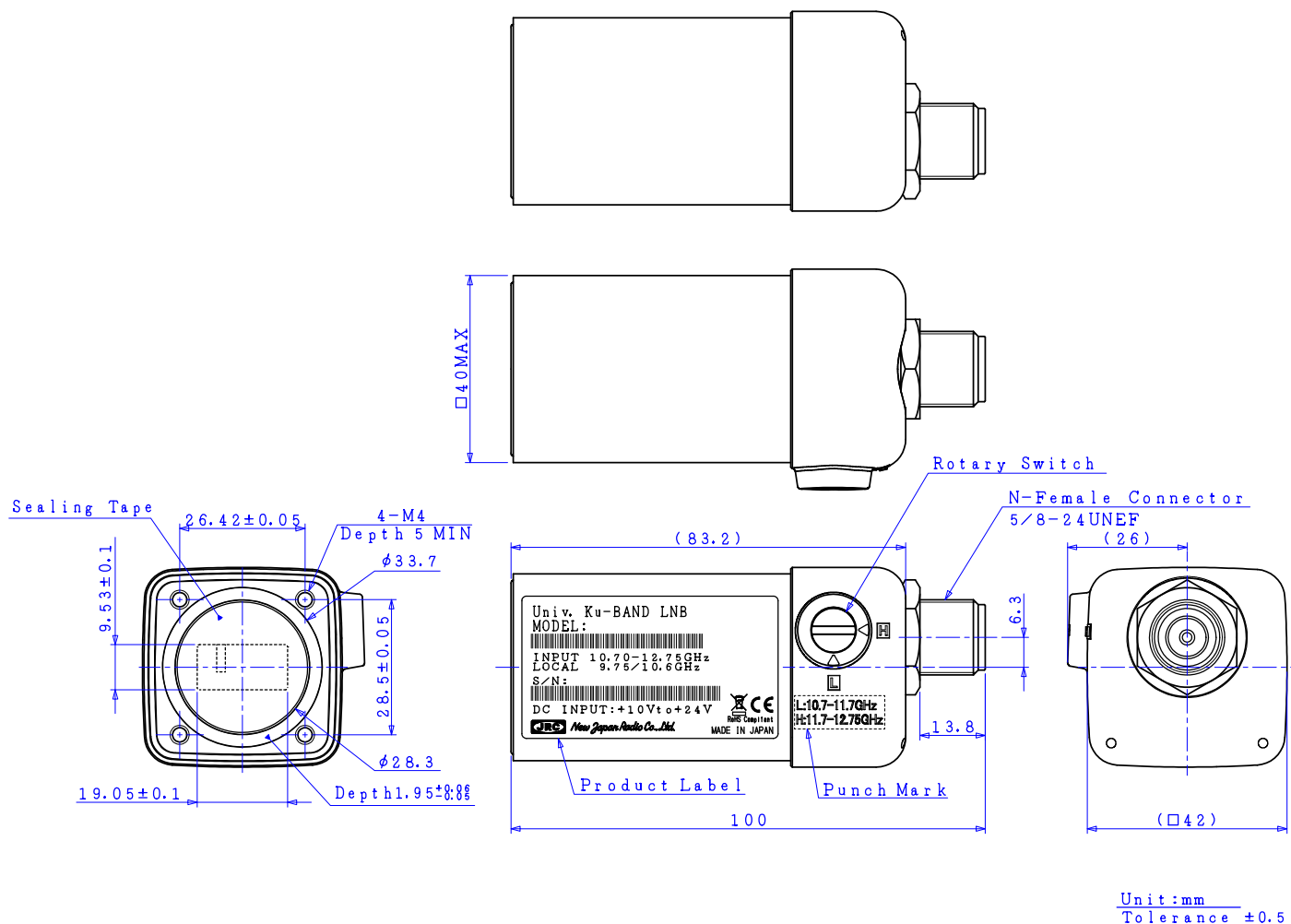


Unit: mm  
Tolerance  $\pm 0.5$

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< **Outline Drawing** >

**NJR2841LN**

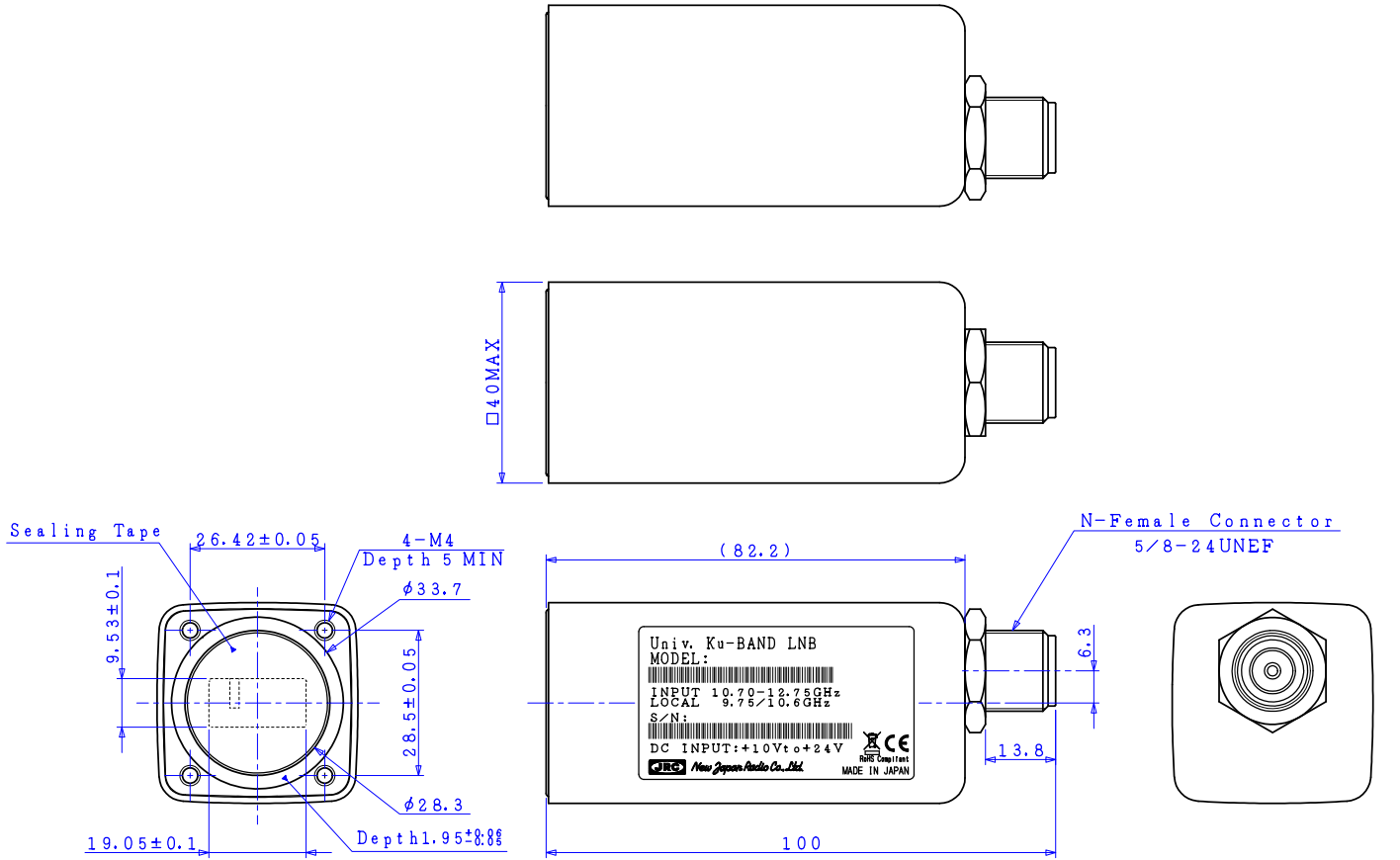


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Rev.05(May 2017) Ku 2LO PLL LNB (Int. Ref. 50ppm)\_NJR2841L/42L/43L

< **Outline Drawing** >

**NJR2842LN & NJR2843LN**



Unit: mm  
Tolerance  $\pm 0.5$

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