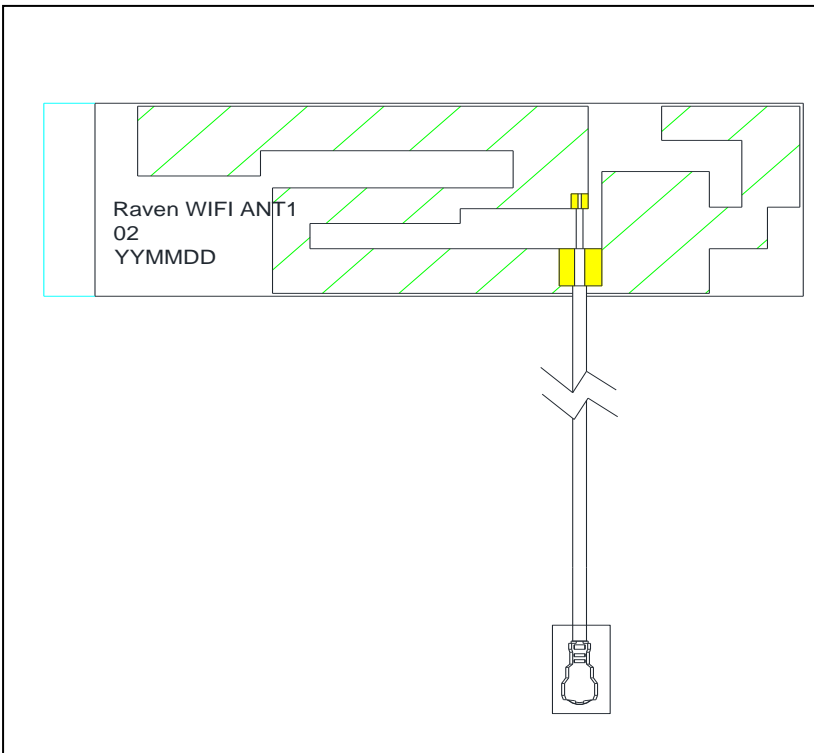


**Series: Raven**

**Altek P/N:** 117-0108-001  
**PULSE P/N:** TZ2530W

**Features:**

- WLAN antenna
- FPC
- 0.81mm LLS cable with IPEX4代
- RoHS Compliant



**Applications:**

- AI CAM

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Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998





Series: Raven

Altek P/N: 117-0108-001  
PULSE P/N: TZ2530W

**ELECTRICAL SPECIFICATIONS**

|                    |                              |
|--------------------|------------------------------|
| Antenna Type       | FPC PIFA                     |
| Frequency          | 2.4-2.5 GHz<br>5.15-5.85 GHz |
| Nominal Impedance  | 50 Ω                         |
| Radiation Pattern  | Omni                         |
| Gain               | Refer to below table         |
| Polarization       | Linear                       |
| Power Withstanding | 1W                           |

**MECHANICAL SPECIFICATIONS**

|                          |                |
|--------------------------|----------------|
| Overall Length           | 41.5*13*0.15mm |
| Antenna Color / Material | See table, P3  |
| Connector type           | See table, P3  |
| Cable type               | See table, P3  |
| Cable length             | See table, P3  |
| Adhesive tape            | Tesa68532      |

**ENVIRONMENTAL SPECIFICATIONS**

|                       |             |
|-----------------------|-------------|
| Operating Temperature | -40 ~ +85°C |
| Storage Temperature   | -40 ~ +85°C |
| RoHS Compliant        | Yes         |

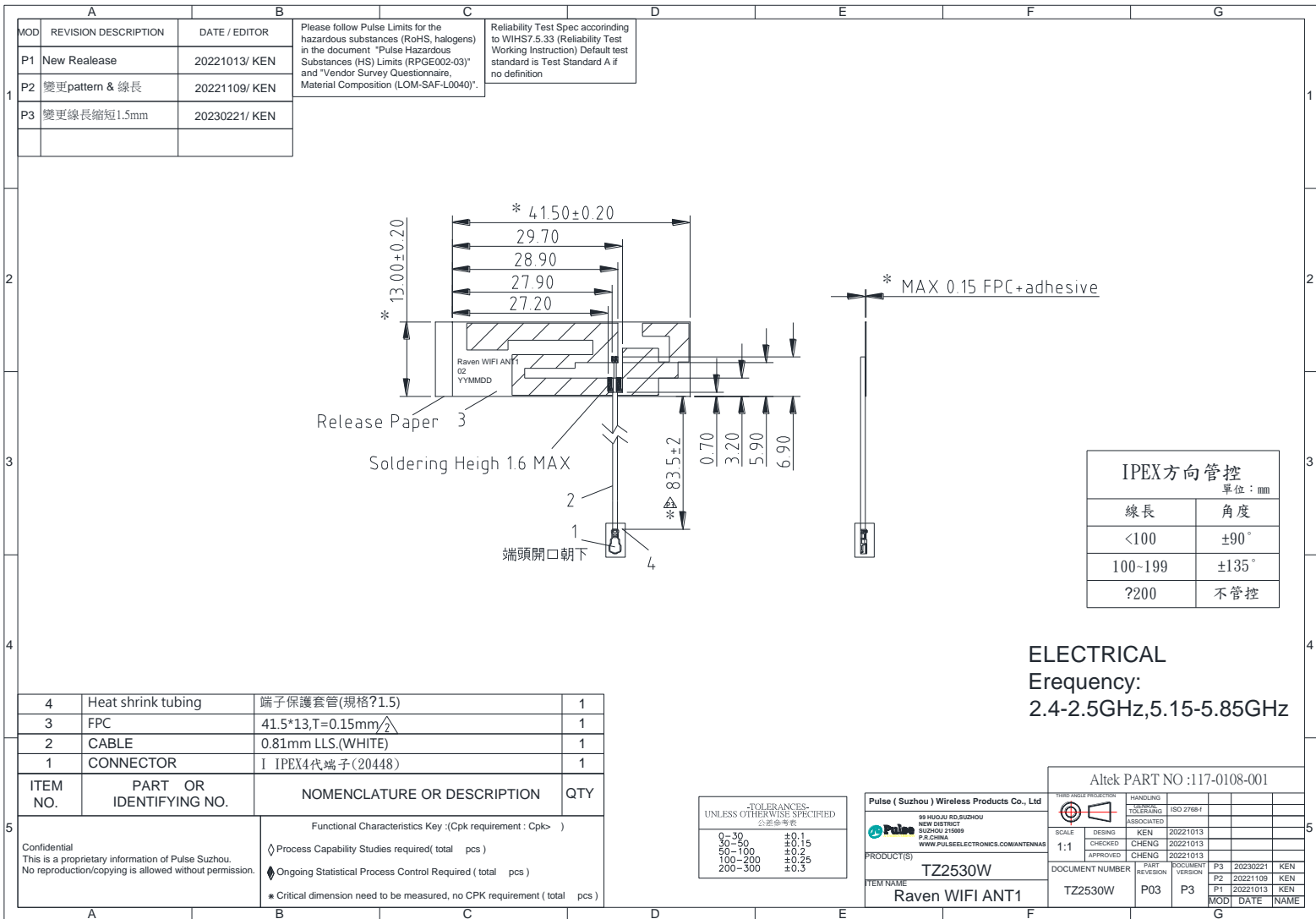


Series: Raven

Altek P/N: 117-0108-001

PULSE P/N: TZ2530W

**MECHANICAL DRAWING**



ELECTRICAL  
Erequency:  
2.4-2.5GHz,5.15-5.85GHz

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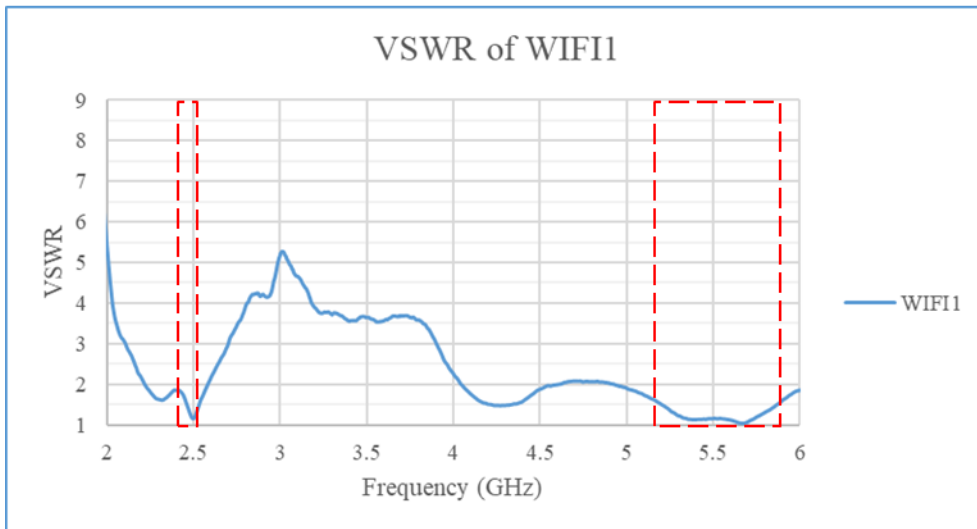
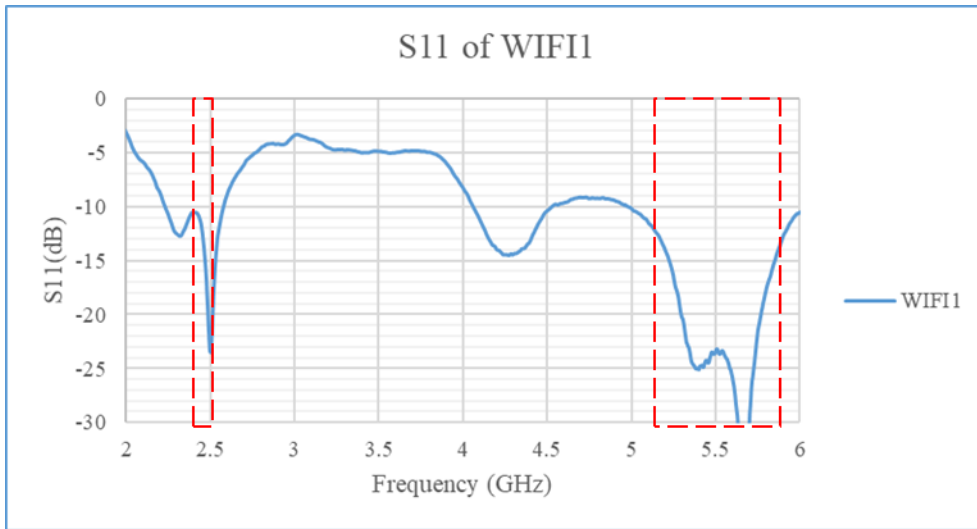


**Series: Raven**

**Altek P/N:** 117-0108-001  
**PULSE P/N:** TZ2530W

**TEST SETUP**

S11 of WiFi Ant1



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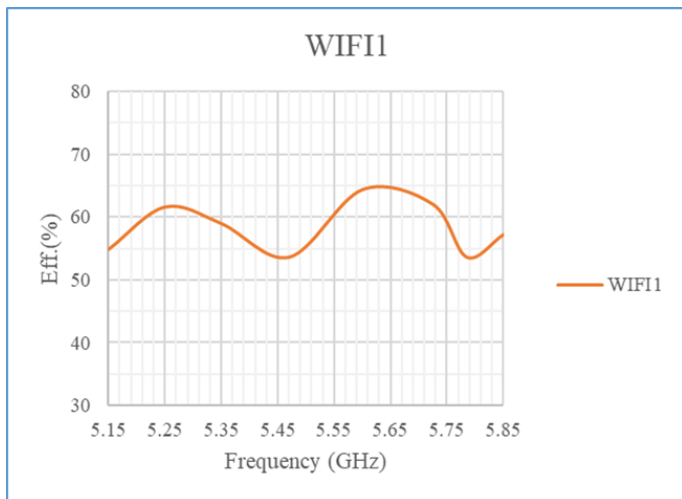
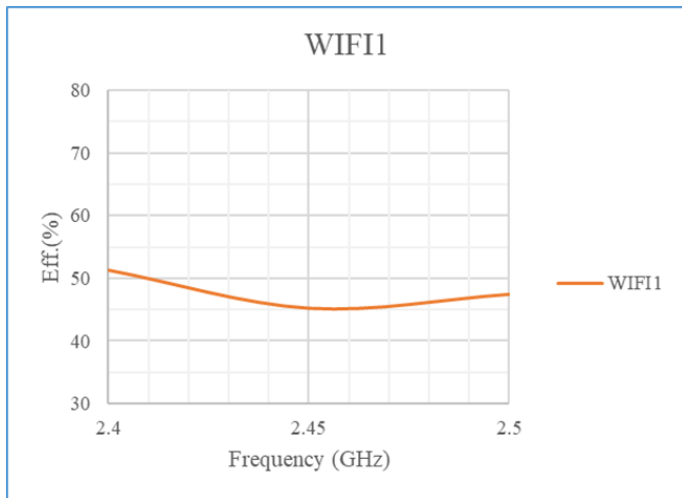




**Series: Raven**

**Altek P/N:** 117-0108-001  
**PULSE P/N:** TZ2530W

Antenna Efficiency



| WIFI1       |          |         |                 |
|-------------|----------|---------|-----------------|
| Freq. (GHz) | Eff.(dB) | Eff.(%) | Peak Gain (dBi) |
| 2.4         | -2.90    | 51.3    | 3.3             |
| 2.45        | -3.45    | 45.2    | 3.1             |
| 2.5         | -3.24    | 47.4    | 3.0             |
| 5.15        | -2.60    | 55.0    | 7.6             |
| 5.25        | -2.10    | 61.7    | 7.9             |
| 5.35        | -2.29    | 59.0    | 7.8             |
| 5.47        | -2.70    | 53.7    | 7.5             |
| 5.6         | -1.91    | 64.4    | 7.9             |
| 5.725       | -2.07    | 62.1    | 6.6             |
| 5.785       | -2.70    | 53.7    | 6.1             |
| 5.85        | -2.42    | 57.3    | 6.5             |

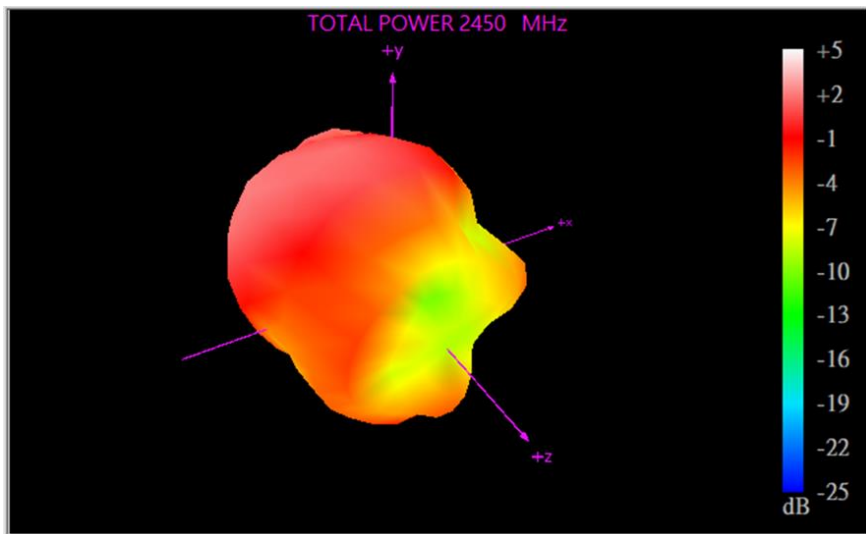


**Series: Raven**

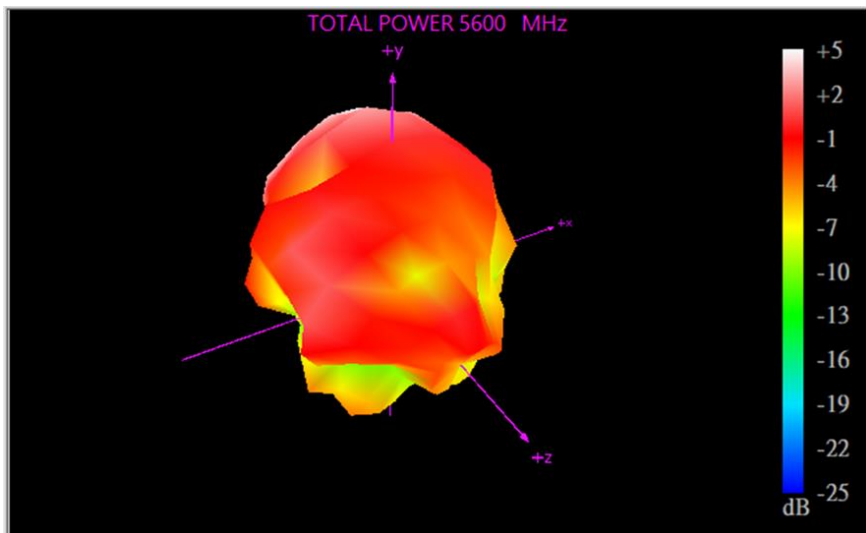
**Altek P/N:** 117-0108-001  
**PULSE P/N:** TZ2530W

**CHARTS**

Radiation Pattern of WiFi Ant I (2450MHz)



Radiation Pattern of WiFi Ant I (5600MHz)



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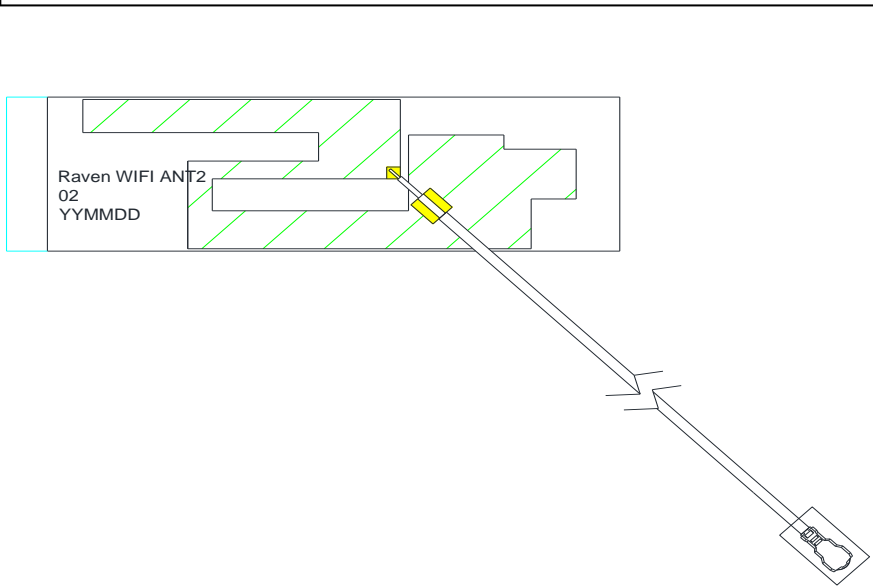


**Series: Raven**

**Altek P/N:** 117-0109-001  
**PULSE P/N:** TZ2531W

**Features:**

- WLAN antenna
- FPC
- 0.81mm LLS cable with IPEX4代
- RoHS Compliant



**Applications:**

- AI CAM

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Tel: 49 7032 7806 0

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Suzhou New District  
Jiangsu Province, Suzhou 215009 PR China  
Tel: 86 512 6807 9998





**Series: Raven**

**Altek P/N:** 117-0109-001  
**PULSE P/N:** TZ2531W

**ELECTRICAL SPECIFICATIONS**

|                    |                              |
|--------------------|------------------------------|
| Antenna Type       | FPC PIFA                     |
| Frequency          | 2.4-2.5 GHz<br>5.15-5.85 GHz |
| Nominal Impedance  | 50 Ω                         |
| Radiation Pattern  | Omni                         |
| Gain               | Refer to below table         |
| Polarization       | Linear                       |
| Power Withstanding | 1W                           |

**MECHANICAL SPECIFICATIONS**

|                          |               |
|--------------------------|---------------|
| Overall Length           | 42*13*0.15mm  |
| Antenna Color / Material | See table, P3 |
| Connector type           | See table, P3 |
| Cable type               | See table, P3 |
| Cable length             | See table, P3 |
| Adhesive tape            | Tesa68532     |

**ENVIRONMENTAL SPECIFICATIONS**

|                       |             |
|-----------------------|-------------|
| Operating Temperature | -40 ~ +85°C |
| Storage Temperature   | -40 ~ +85°C |
| RoHS Compliant        | Yes         |





**Series: Raven**

**Altek P/N: 117-0109-001**

**PULSE P/N: TZ2531W**

**MECHANICAL DRAWING**

|     |                      |               |   |  |  |  |  |  |
|-----|----------------------|---------------|---|--|--|--|--|--|
| MOD | REVISION DESCRIPTION | DATE / EDITOR | Please follow Pulse Limits for the hazardous substances (RoHS, halogens) in the document "Pulse Hazardous Substances (HS) Limits (RPGE002-03)" and "Vendor Survey Questionnaire, Material Composition (LOM-SAF-L0040)". | Reliability Test Spec according to WIHS7.5.33 (Reliability Test Working Instruction) Default test standard is Test Standard A if no definition |  |  |  |  |
| P1  | New Realease         | 20221013/ KEN |   |  |  |  |  |  |
| P2  | 變更pattern & 線長       | 20221109/ KEN |   |  |  |  |  |  |
| P3  | 變更線長縮短8mm            | 20230221/ KEN |   |  |  |  |  |  |

|   |                    |                    |   |
|---|--------------------|--------------------|---|
| 4 | Heat shrink tubing | 端子保護套管(規格?1.5)     | 1 |
| 3 | FPC                | 42*13,T=0.15mm     | 1 |
| 2 | CABLE              | 0.81mm LLS,(BLACK) | 1 |
| 1 | CONNECTOR          | I IPEX4代端子(20448)  | 1 |

| ITEM NO.   | PART OR IDENTIFYING NO. | NOMENCLATURE OR DESCRIPTION | QTY |
|--|-------------------------|-----------------------------|-----|
| Functional Characteristics Key : (Cpk requirement : Cpk> )   |                         |                             |     |
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| ◊ Process Capability Studies required( total pcs )<br>◆ Ongoing Statistical Process Control Required ( total pcs )<br>* Critical dimension need to be measured, no CPK requirement ( total pcs ) |                         |                             |     |

|   |       |
|---|-------|
| -TOLERANCES-<br>UNLESS OTHERWISE SPECIFIED<br>公差參考表 |       |
| 0-30  | ±0.1  |
| 30-50   | ±0.15 |
| 50-100  | ±0.2  |
| 100-200   | ±0.25 |
| 200-300   | ±0.3  |

|   |  |                            |  |
|---|--|----------------------------|--|
| Pulse ( Suzhou ) Wireless Products Co., Ltd   |  | HANDLING                   |  |
| 99 XIHOJIE RD,SUZHOU<br>NEW DISTRICT<br>SUZHOU 215009<br>P.R.CHINA<br>WWW.PULSEELECTRONICS.COM/ANTENNAS |  | ISO 27681                  |  |
| PRODUCT(S)<br>TZ2531W   |  | SCALE<br>1:1               |  |
| ITEM NAME<br>Raven WIFI ANT2  |  | DOCUMENT NUMBER<br>TZ2531W |  |
|   |  | PART REVISION<br>P03       |  |
|   |  | DOCUMENT VERSION<br>P3     |  |
|   |  | P3 20230221 KEN            |  |
|   |  | P2 20221109 KEN            |  |
|   |  | P1 20221013 KEN            |  |
|   |  | MOD DATE NAME              |  |

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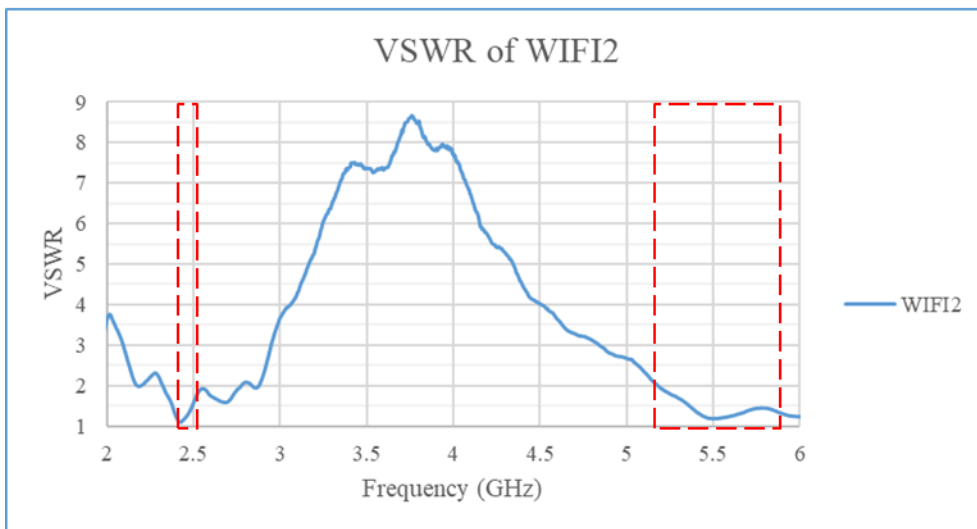
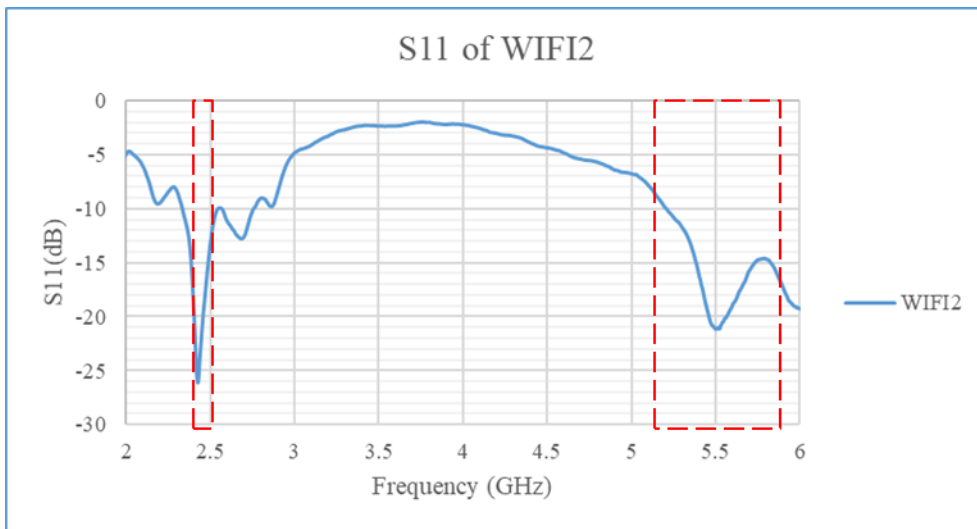


**Series: Raven**

**Altek P/N:** 117-0109-001  
**PULSE P/N:** TZ2531W

**TEST SETUP**

S11 of WiFi Ant2



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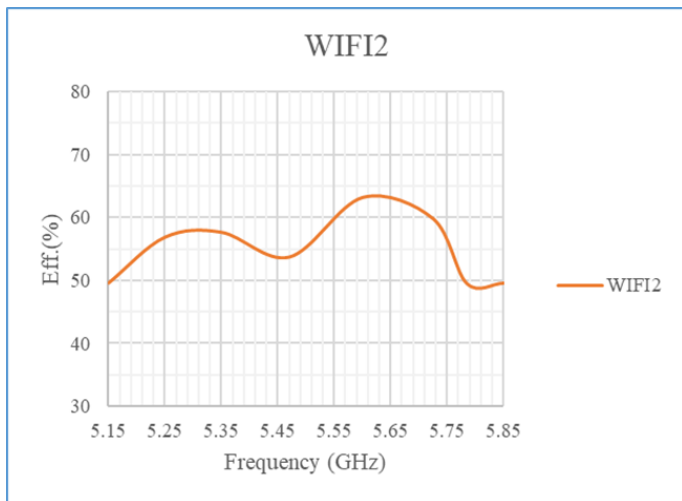
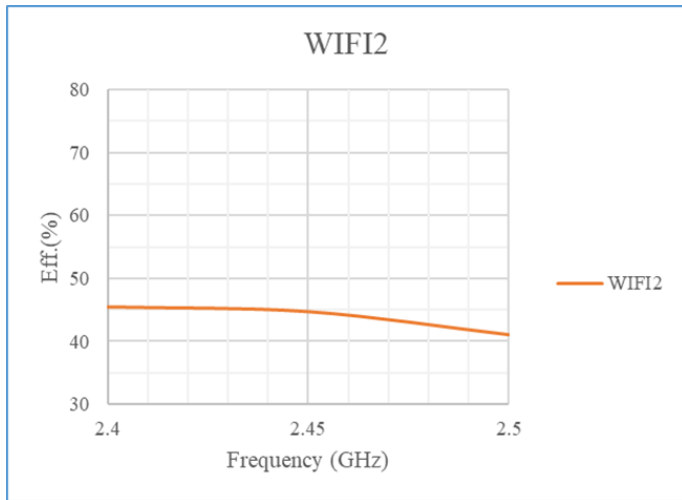




**Series: Raven**

**Altek P/N:** 117-0109-001  
**PULSE P/N:** TZ2531W

Antenna Efficiency



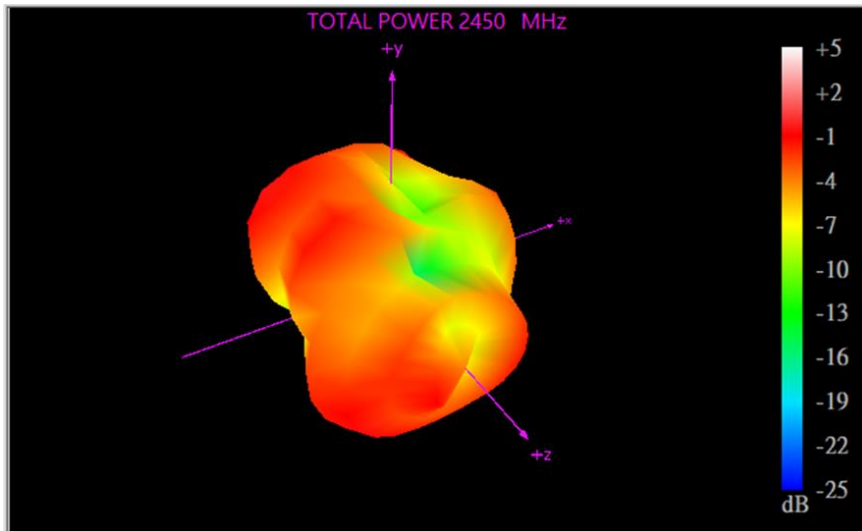
| WIFI2       |          |         |                 |
|-------------|----------|---------|-----------------|
| Freq. (GHz) | Eff.(dB) | Eff.(%) | Peak Gain (dBi) |
| 2.4         | -3.43    | 45.4    | 2.1             |
| 2.45        | -3.50    | 44.7    | 2.2             |
| 2.5         | -3.86    | 41.1    | 2.7             |
| 5.15        | -3.05    | 49.5    | 6.7             |
| 5.25        | -2.45    | 56.9    | 7.3             |
| 5.35        | -2.39    | 57.7    | 7.6             |
| 5.47        | -2.70    | 53.7    | 7.1             |
| 5.6         | -1.99    | 63.2    | 7.2             |
| 5.725       | -2.23    | 59.8    | 6.4             |
| 5.785       | -3.06    | 49.4    | 5.3             |
| 5.85        | -3.05    | 49.5    | 5.2             |

**Series: Raven**

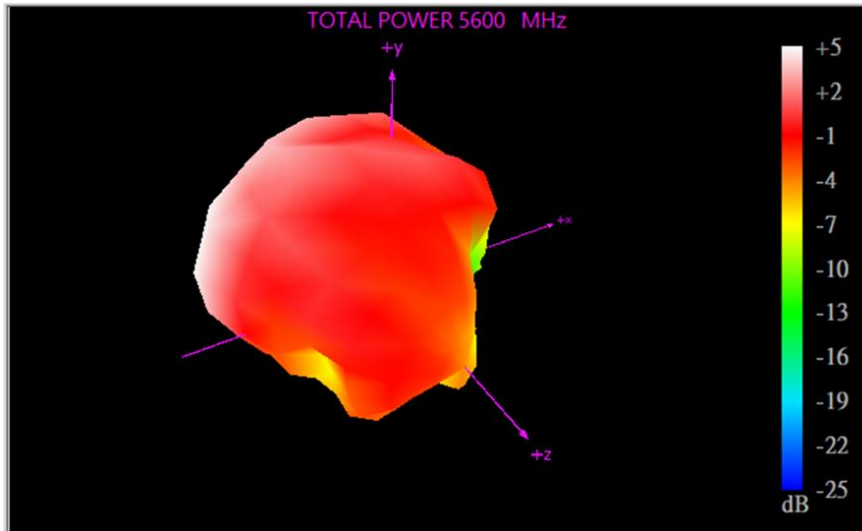
**Altek P/N:** 117-0109-001  
**PULSE P/N:** TZ2531W

**CHARTS**

Radiation Pattern of WiFi Ant2(2450MHz)



Radiation Pattern of WiFi Ant2(5600MHz)



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