

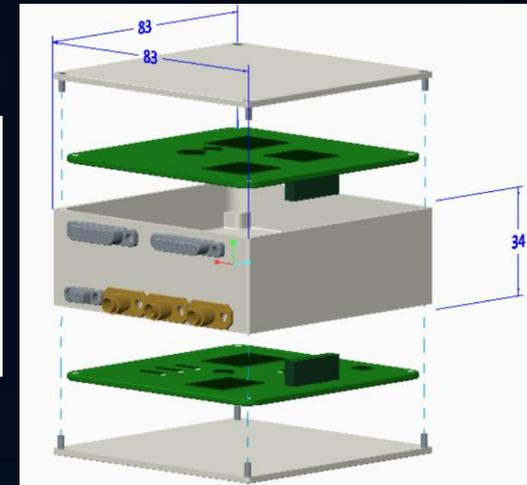
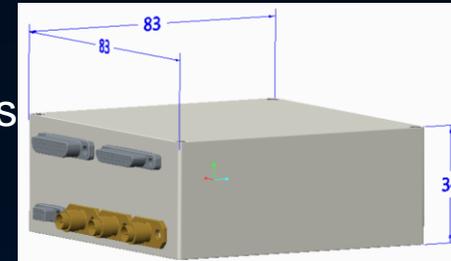
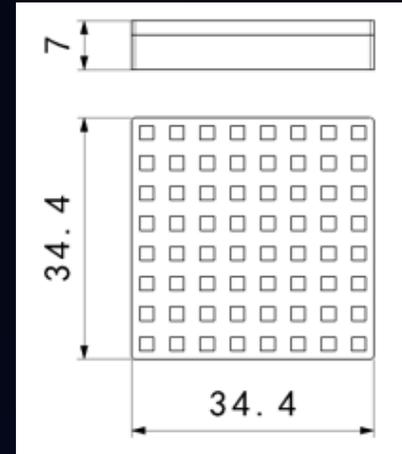
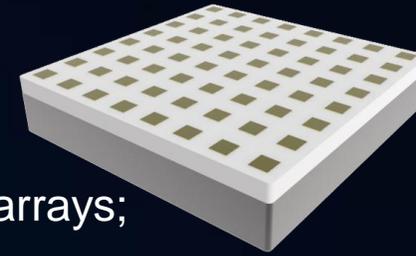
Miniaturized Data Link End Products

main function:

- a) high data rate ad hoc network communication based on low-cost phased arrays;
- b) multi-layer network coexistence, intelligent switching, network reconstruction ability after injury;
- c) short-time burst signals, low intercept probability directional transmission, spread spectrum modulation, strong anti-interference ability;

performance:

- a) working frequency band: Ka band, working frequency can be bound before the test;
- b) multiple access plan: TDMA+SDMA;
- c) maximum communication distance: no less than 10km;
- d) business data communication data rate: 10Mbps, 5Mbps, 512Kbps
- e) time synchronization accuracy: better than 3ns (RMS);
- f) wireless communication information update rate: 50Hz;
- g) measurement information communication transmission delay: not more than 20ms;
- h) networking time: no more than 3s;
- i) directional data link terminal equipment power consumption: The average power is not more than 20W;
- j) directional data link terminal equipment weight: not more than 500g;



Terminal Homing Correction Fuze

main functions and technical specifications:

a) terminal homing correction fuze

detection range: $\leq 1.2\text{km}$;

ranging accuracy: $\leq \pm 1\text{m}$

angle measurement accuracy: $\leq 0.2^\circ (1\sigma)$

scan range: azimuth $\pm 15^\circ$, pitch angle $\pm 15^\circ$;

beam width: $\geq 5^\circ \times 5^\circ$;

b) comprehensive correction ability: $\geq 30\text{m}$;

c) system CEP: $\leq 3\text{m}$;

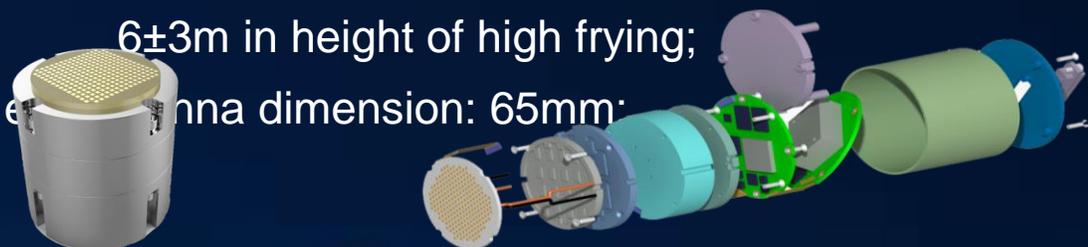
d) explosive control capabilities:

impact, $3 \pm 1.5\text{m}$ in height of low frying

and

$6 \pm 3\text{m}$ in height of high frying;

e) antenna dimension: 65mm ;



parameter	value
Center frequency	77GHz
Wavelength λ	3.9mm
Peak power P_t	2.5W
Beam width θ	5°
Antenna gain G	26.9dB
Signal bandwidth B	50MHz (Synthetic bandwidth 640MHz)
Pulse width T	3us, 0.1us
Distance resolution	0.5m
Noise Figure F_n	9dB
System loss L_S	14dB
Atmospheric attenuation rate L_w	1mm/h rainfall: 0.6dB/km

E band

main functions and technical specifications

- a) search, capture and tracking of ground and low-altitude moving targets;
- b) search, capture and tracking of stationary vehicles on the ground;
- c) search, intercept, single pulse tracking, one-dimensional range image recognition, spotlight SAR imaging and two-dimensional target detection and other work capabilities;
- d) working frequency band: E-band/Ka-band;
- e) T/R channel number: 1024;
- f) equivalent radiation power: 71dBm;
- g) beam width: 2.6° ;
- h) detection range: $\geq 3\text{km}@30\text{m}^2$ (3mm band), $6\text{km}@30\text{m}^2$ (8mm band);
- i) scan range: $\geq \pm 30^\circ$;
- j) dimension: $\Phi 120\text{mm} \times 100\text{mm}$ (3mm band);
- k) weight: ≤ 1.5 kg;
- l) power consumption: $\leq 160\text{W}$.

