

July 25, 2023

ASELSAN's Indigenous Infrared Detector R&D Activities

Cooled Mid-Wavelength Infrared Detector Dewar Assembly

FELIS-640/15-MW includes Cadmium Zinc Telluride, substrate and Mercury, Cadmium, Telluride sensor epilayer. The mid-wave detector will be used in high performance Electro-Optical Reconnaissance and Surveillance Systems designed by ASELSAN. It is a cooled infrared detector dewar assembly with 640x512 resolution and 15 μm pixel pitch, detecting in the mid-wavelength infrared (MWIR) band, has high functionality, high responsivity, low read-out circuit noise and programmable frame rate. Pilot production activities for the detector will start in the second half of 2023.

Uncooled Short Wavelength Infrared Detector

The photon detector LEOPAR-640/15-SW, which detects in the short wavelength infrared (SWIR) band, is quite effective when it comes to maintain reconnaissance & surveillance missions in foggy and smoky environments where visibility is reduced. The short-wave detector has both civil and military application areas and does not need cryogenic cooling. It has Indium Gallium Arsenide active material, 640x512 resolution, 15 μm pixel pitch, high functionality, high responsivity, low read-out circuit noise and programmable frame rate. Mass production activities for the detector have started and the first deliveries will be made to the Turkish Armed Forces in the second half of 2023.

Uncooled Long Wavelength Infrared Detector

SAFIR-640/17-LW has Vanadium Oxide active material, 640x480 resolution, 17 μm pixel pitch, high functionality, high responsivity, low power consumption and programmable frame rate. The long-wave detector will be used in Electro-Optical Reconnaissance, Surveillance and Targeting Systems designed by ASELSAN. Pilot production activities for the detector have started and the first deliveries will be made in the second half of 2023.

About ASELSAN:

As a global technology leader, we have established an organization that delivers new experiences to our users all across the world. By investing into our highly diversified human asset, we keep growing in a sustainable and inspiring fashion.

A journey began with a radio communication device today took us to more than 500 various products and solutions that changed “status quo ante” in defense and security arena. Our ambitious global expansion strategy made us embracing investment opportunities in promising markets.

With the inspiration of our clients in more than 80 countries, we start every new day with new ideas and dreams that encourages us to challenge technology boundaries. Striving for a better planet is our endless motivation.

Note: For more information regarding the products, please visit our booth at the IDEF 2023.

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