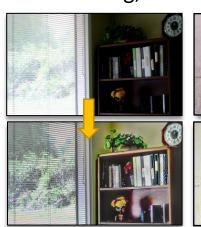
Phelps **20/20**

Crystal

Automatic Video Enhancement Device

Crystal takes a live EO/IR video stream as input and outputs in realtime, with no user input or adjustment, an enhanced video stream for viewing, further analytics processing, transmitting or storing.









Poor Contrast Visible

Fog/Haze

Low Contrast IR

Product Capabilities

Core Enhancement Features: Adaptive Brightness Balance, Adaptive Contrast Correction, Adaptive Sharpness Improvement, Adaptive Fog, Haze, Dust, and Pollution Mitigation, Adaptive Sensor Gain Correction, and Super-Resolution





Original

/ideo











Real Time Sub-Frame Latency Intelligent Video Enhancement Device

Proprietary Quality Assessment

NIIRS correlated Clarity Metrics (CM) classify image frame issues **Enhancement Selection**

CMs inform the selection of optimal enhancement functions to apply

Intelligent Parameters

Function params are intelligently set based on quality assessment results Image Distribution

Enhancement configuration is applied, and image is distributed

Contact: Besma Abidi, CEO Email: besma@phelps2020.com Tel: 865-705-5171 Phelps **20/20**



Crystal

Automatic Video Enhancement Device

OR

Product Configurations

OR



Software Solution Android



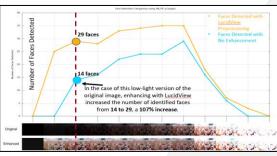
Software Solution Windows/Linux



Military Grade Portable **Edge Processor with** Video I/O

Additional Features

Improved accuracy of video detection, facial recognition, and license plate reading



Specifications

Visibility Re-establishment in Low Light/Shadows Zones analytics routines such as object

- **Adaptive Color Correction**
- Adaptive Brightness Balance
- Adaptive Sensor Gain Correction
- Adaptive Contrast and **Sharpness Improvement**
- Poor Weather Mitigation: Fog, Haze, Dust, and Pollution
- Intelligent Clarity Metric Guided **Enhancement**

Crystal's current configuration is appropriate for many air, ground and sea operations. Phelps2020 can also provide custom configurations to meet client specific technical requirements.

Size & Weight	Current Dimensions (enclosure)	3 to 60 in ³
	Current Weight (enclosure and board)	From 2 oz to 2 lbs
	NGB Board only (Dim & Weight)	2x3x0.5 in & 2 oz
Power	Power Supply	9-36VDC
	Power Consumption	Max. 12 Watt
Video	Connectors	HD-SDI and Ethernet (mil-spec)
	Resolutions	Up to 1080P (60 FPS)
Speed/Latency		Real-time with Sub-frame Latency
Environmental	Operating/Storage Temp	Approx20C to 50C