

INFRALOG

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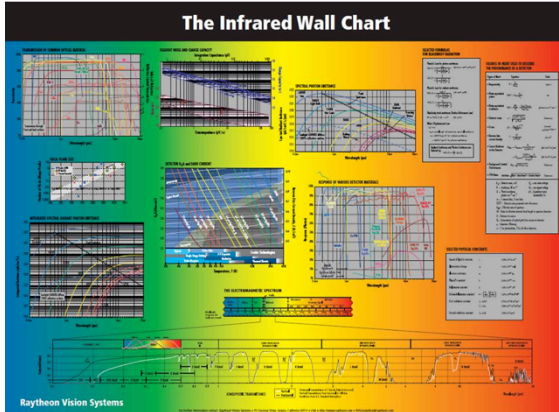


Raytheon

INFRALOG

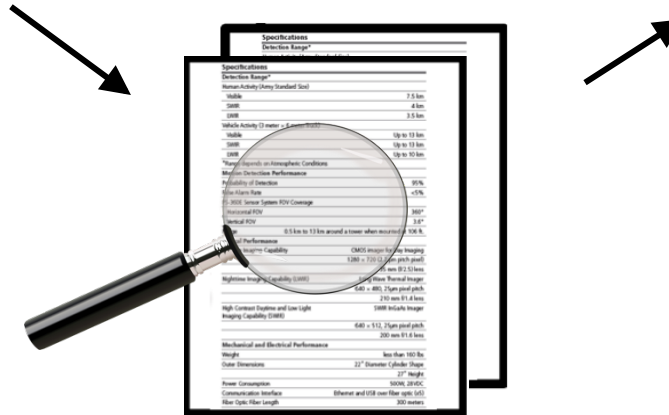
**Goal: Make the search for technology
as advanced as the technology itself.**

Current Situation

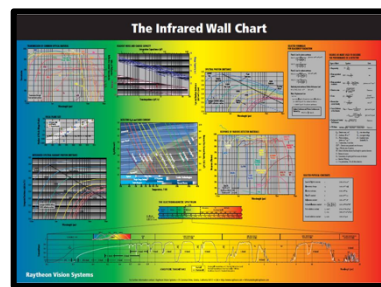
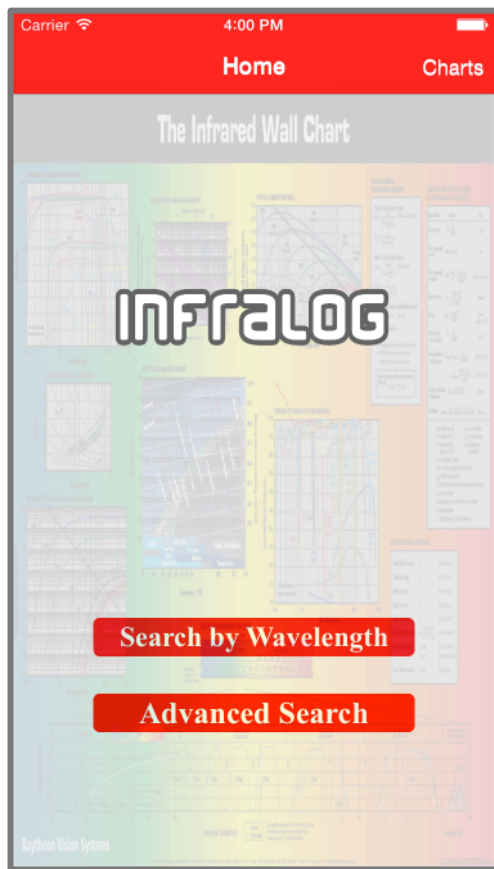


The Infrared Wall Chart

Product Information Sheets



Raytheon
Representative



1. Information Charts

Detection Range*	
Human Activity (Army Standard Unit)	
- Indis	3.5 km
- LDR	4.5 km
- DMR	3.5 km
Vehicle Activity (3 meter x 6 meter field)	
- Indis	15 to 15 km
- LDR	15 to 15 km
- DMR	15 to 15 km
*Range depends on atmospheric conditions	
Marine Detection Performance	
Probability of Detection	95%
False Alarm Rate	<1%
PI, 3000 Series System ROV Coverage	
- Horizontal FOV	360°
- Vertical FOV	9.4°
Range	0.5 km to 15 km around a base when mounted at 100 ft
Optical Performance	
Daytime Imaging Capability	CMOS image for Day Imaging
	1280 x 1024 (2.2 µm pitch pixel)
Nighttime Imaging Capability (LDR)	Long Wave Thermal Imager
	640 x 480, 17 µm pixel pitch
High Contrast Daytime and Low Light Imaging Capability (DMR)	DMR Indigo Imager
	640 x 480, 17 µm pixel pitch
Mechanical and Electrical Performance	
Weight	less than 100 lbs
Case Dimensions	20" (Maximum Cable Length)
Power Consumption	27" Height
Communication Interface	50000, 2048C
Slow Light Filter Length	Shutter and 1000 nm Blue with 1000

3. Product Previews

Home
Advanced Search

Size (µm)

Mass (g)

Power (mW)

Wavelength (µm)

Resolution Width (Pixels)

Resolution Height (Pixels)

Pixel Pitch (µm)

Full Frame Rate (Hz)

Heat Management
>

Capture Method
>

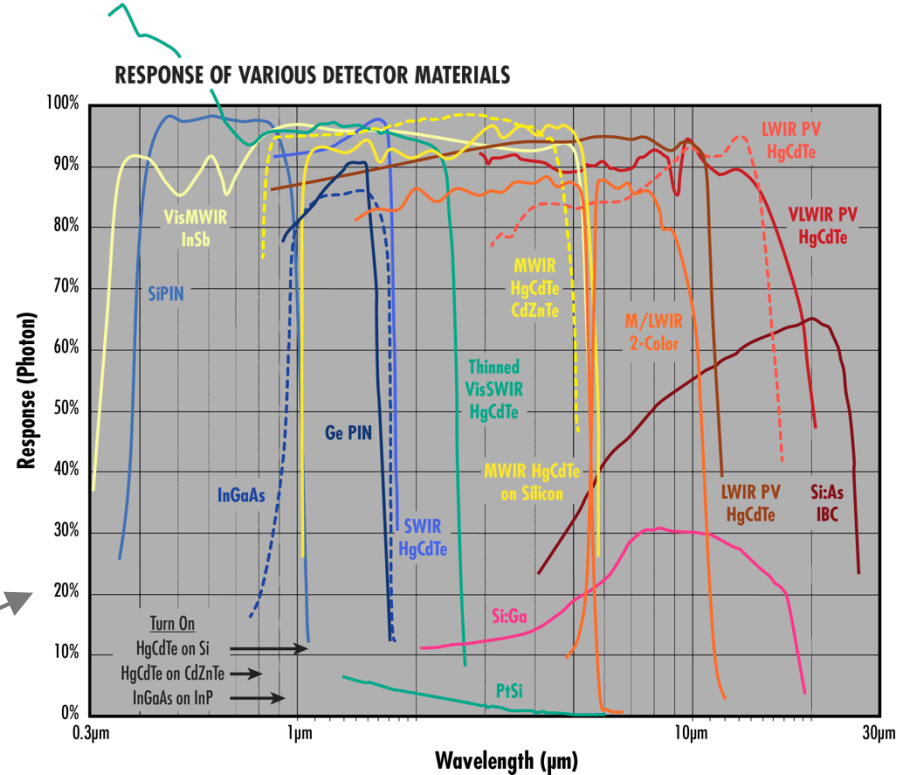
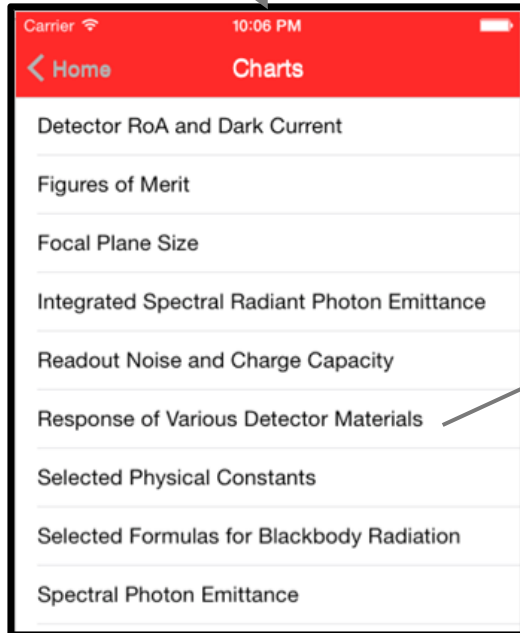
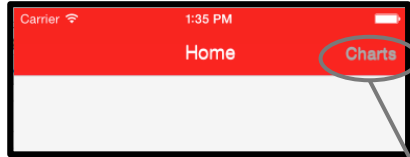
Sensor Type
>

Detector Material
>

Submit

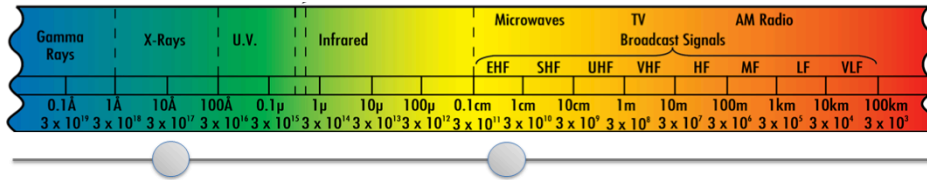
2. Filterable Database

Information Charts



Filterable Database

Two possible ways to search for products that match the customer's requirements.



Search by wavelength

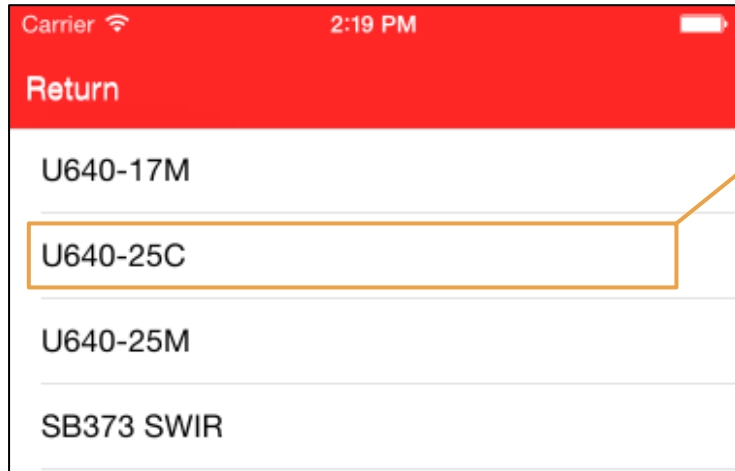
[Home](#) **Advanced Search**

Size (μm)	<input type="text" value="0"/>
Mass (g)	<input type="text" value="0"/>
Power (mW)	<input type="text" value="0"/>
Wavelength (μm)	<input type="text" value="0"/>
Resolution Width (Pixels)	<input type="text" value="0"/>
Resolution Height (Pixels)	<input type="text" value="0"/>
Pixel Pitch (μm)	<input type="text" value="0"/>
Full Frame Rate (Hz)	<input type="text" value="0"/>
Heat Management	>
Capture Method	>
Sensor Type	>
Detector Material	>

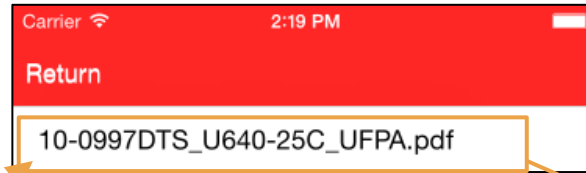
Submit

Advanced Search

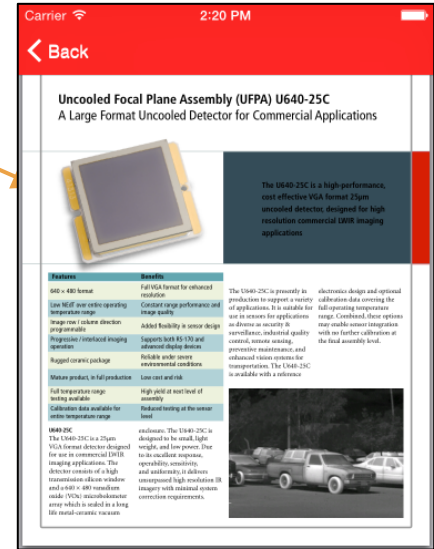
Product Previews



All products matching specified criteria are listed for customer



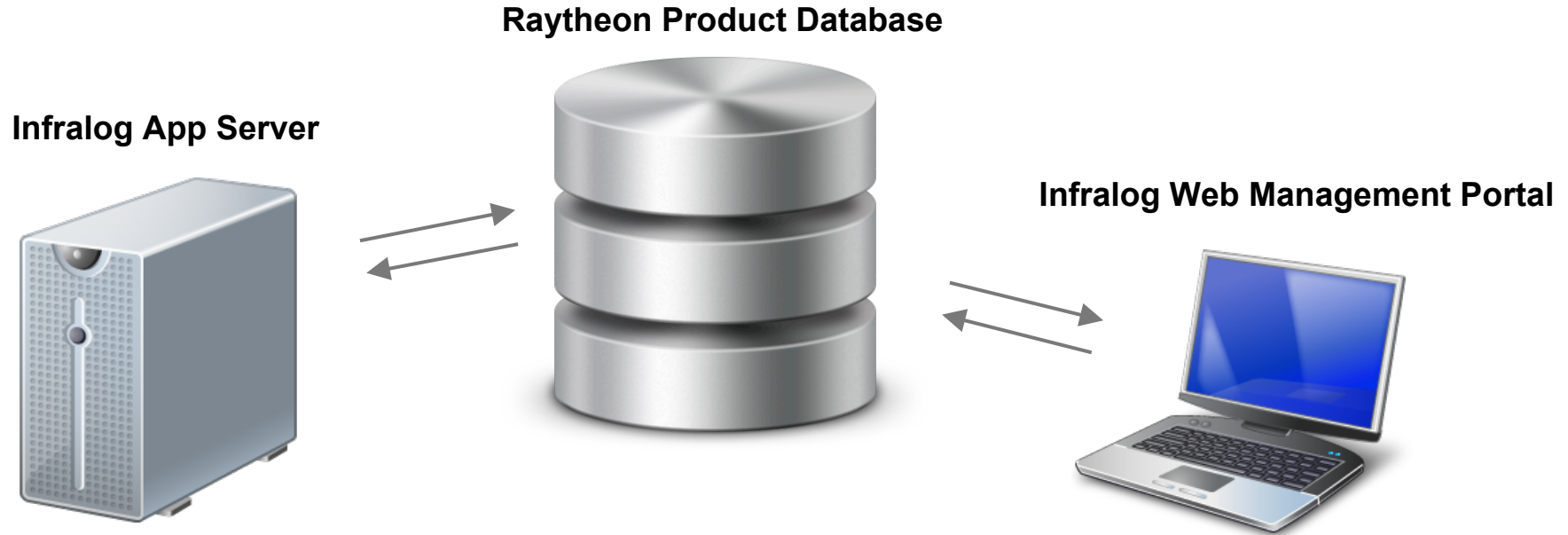
Selecting a product shows all of its associated datasheets.



Selecting a datasheet displays its specification sheet.

Application Demo

Backend



Server > Raytheon File Distribution Protocol

R
F
D
P

What & Why:

- The RFDP Server serves two main purposes:
 - Allow users to search through Raytheon Products remotely
 - Transmit product information to Infracore users upon request

How:

- PyMySQL v0.6
 - The Official MySQL connector is not compatible with Python 3.4.3
- TCP Multi-threaded Socket Handling
 - Allows for multiple users at once



Database



- Facilitates communication between the Infracore App Server and the Infracore Web Backend
- Store all products and their relevant information
- Powered by MySQL



Backend Interface

- Allows business-end user to view the database and update entries.
- Built in PDF extractor to help supply suggestions for product

Enter Product ID in the box for Product Info:	<input type="text"/>	<input type="button" value="Submit"/>
---	----------------------	---------------------------------------

Product info will be listed here...

Enter Product ID in the box for Product File Info:	<input type="text"/>	<input type="button" value="Submit"/>
--	----------------------	---------------------------------------

Product file info will be listed here...

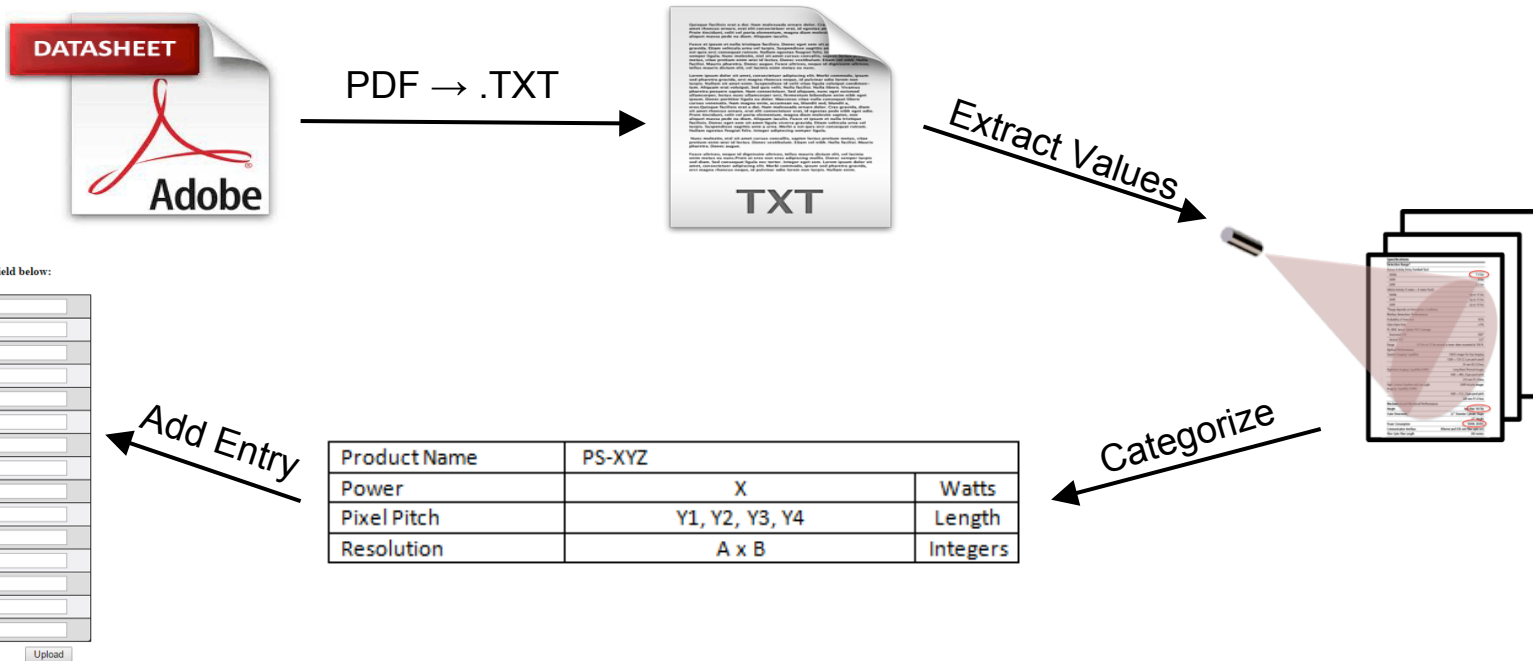
Tabled fields for ease of input

Product file info will be listed here...

Enter Information for Product Entry	
Product Id:	<input type="text"/>
Product Name:	<input type="text"/>
Size:	<input type="text"/>
Weight:	<input type="text"/>
Power:	<input type="text"/>
Starting Wavelength:	<input type="text"/>
Ending Wavelength:	<input type="text"/>
ResolutionX:	<input type="text"/>
ResolutionY:	<input type="text"/>
Pixel Pitch:	<input type="text"/>
Full FrameRate:	<input type="text"/>
Sensor Type:	<input type="text"/>
Heat Management:	<input type="text"/>
Detector Material:	<input type="text"/>
Capture Method:	<input type="text"/>
<input type="button" value="Submit"/>	

Enter Information for Product File Entry	
Product Id:	<input type="text"/>
Product File ID:	<input type="text"/>
<input type="button" value="Choose File"/>	No file chosen
<input type="button" value="Upload"/>	

PDF Extraction



Backend Demo

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Acknowledgements:

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