



Ball's High Resolution Camera (BHRC 60) is a state-of-the-art optical remote sensing payload that provides simultaneous one-meter class panchromatic and four-meter class multispectral imagery. This pushbroom implementation is specifically designed to cover broad areas without the need for repointing.



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BHRC 60 Performance Specifications

<i>Item</i>	<i>BHRC 60 Performance</i>
Spatial Resolution	Panchromatic: ~0.5 to 1.25 m ground sample distance (GSD) or 1.37 mrad Multispectral: ~2 to 5 m GSD or 5.47 mrad for 4 VNIR bands (Landsat-like) Optional IR capability
Ground Swath Width	2.12 deg cross track (14 to 34 km depending on altitude)
Data Acquisition Modes	Pushbroom imaging system
Operations	Simultaneous imaging in all bands; simultaneous data transmission capability available through optional equipment
Data Compression	Average 2 bits per pixel from 11 bit initial quantization
Calibration	<10 % absolute
Design Life	>5 years achieved with redundant architecture for orbits between 400 to 900 km from 0 degrees to sun synchronous
Onboard Storage Capacity	Optional equipment scalable up to 200 Gbits (equivalent to over 90 square images)
Communications Image Data	Optional 320 Mbps X-band transmitter and gimbaled antenna
Payload Mass	Total weight: 296 kg Total weight with options: 342 kg
Power Consumption	792 W when imaging (peak) <25 W non-imaging (orbital average)
Telescope Size	115 cm x 141 cm x 195 cm (rectangular)

Note: Numerical ranges reflect orbit altitude options (400 km to 900 km)

For your most demanding remote sensing needs, the BHRC 60 pushbroom camera provides the highest resolution and performance currently available on the market.

Image quality is paramount when extracting the information you need. That is why Ball Aerospace & Technologies Corp. has created a camera that combines high throughput for low-lighting conditions with an unobscured optical design for maximum clarity of objects of any size. The wide field of view instantly captures a broad area – an important feature when attempting to acquire information on objects whose location might be uncertain.

Control of the system is as easy as using your personal camera. You set the exposure time by selecting various levels of time-delay-integration (TDI) to maximize the signal over a wide range of sun angles. The data is automatically compressed to retain the maximum information content of each image. Now just point and turn it on. When you are finished, turn it off. The area covered by the BHRC 60 is limited only by the amount of onboard storage.

Data continuity is important. For links to the past, the BHRC 60 provides the same multispectral band passes as the first four bands of Landsat. For the future, the built-in redundancy and on-orbit performance tracking provide a long-life system for years to come.

As optional equipment to ease the task of integration into your spacecraft, the BHRC 60 can be ordered with solid-state recorders capable of simultaneous record and playback, an X-band transmission system tailored to meet international radiation restrictions, and star trackers mounted to the telescope structure for optimal precision of the geolocation of your images.

The BHRC 60 is part of the Ball Aerospace product line of telescopes and sensor options that span a range of spatial resolutions and spectral bands. Please contact us to discuss how our series of products can be combined to meet your specific requirements.