



LITHIUM POLYMER – IT'S STILL LITHIUM ION

LITHIUM POLYMER VS. LITHIUM ION COMPETITIVE COMPARISON

Lithium ion and lithium polymer cells both utilize the same “chemical material”. As a result, they perform essentially the same in terms of capacity, talk time and cycle life.

The primary difference is how the cells are packaged. Lithium ion cells utilize a thicker walled rigid aluminum can (similar to a 9 Volt alkaline battery), while lithium polymer cells utilize a much less durable aluminum foil package (similar to a potato chip bag or candy bar wrapper).

Given that lithium polymer cells have less durable packaging, the battery housing must be made more durable to meet mission critical radio requirements. Some battery manufacturers may be utilizing lithium polymer cells primarily to capitalize on what may sound more “high tech”.

The reality is that highly developed lithium ion cells, produced in large volumes by respected cell manufacturers, as used in Motorola radio batteries, represent the best combination of safety, quality and value for two way radios. Motorola **Proven Tough** testing has shown the superiority of Motorola batteries over the competition in drop tests.

The table below summarizes one specific competitive lithium polymer battery as compared to a Motorola lithium ion battery.

LITHIUM POLYMER VS. LITHIUM ION
COMPETITIVE COMPARISON

	Motorola Solutions NNTN6034	Honeywell H8610-LiP(41)
Cell Cathode Material	Lithium Cobalt Oxide	Lithium Cobalt Oxide
Rated Capacity	4150mAh (minimum)	4100mAh (typical)
Advanced IMPRES Charging Technology	Yes	No
Cell Packaging Material	Aluminum can	Aluminum laminate foil
Cell Manufacturer Drop Specification	36 drops from 5 ft to concrete	Not Specified
Environmental Protection	IP54	Not Rated
Radio Protection Circuit	Yes	No
Battery Overvoltage Protection Circuit	2 levels	1 level
Operating Temperature Range	-30C to +60C	-20C to +70C
Intrinsically Safe Option	Available (NNTN7453) IP57 Environmental Protection Rating	Not Available

Motorola Solutions, Inc.
1301 East Algonquin Road Schaumburg, Illinois 60196, U.S.A.
800-367-2346
motorolasolutions.com

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