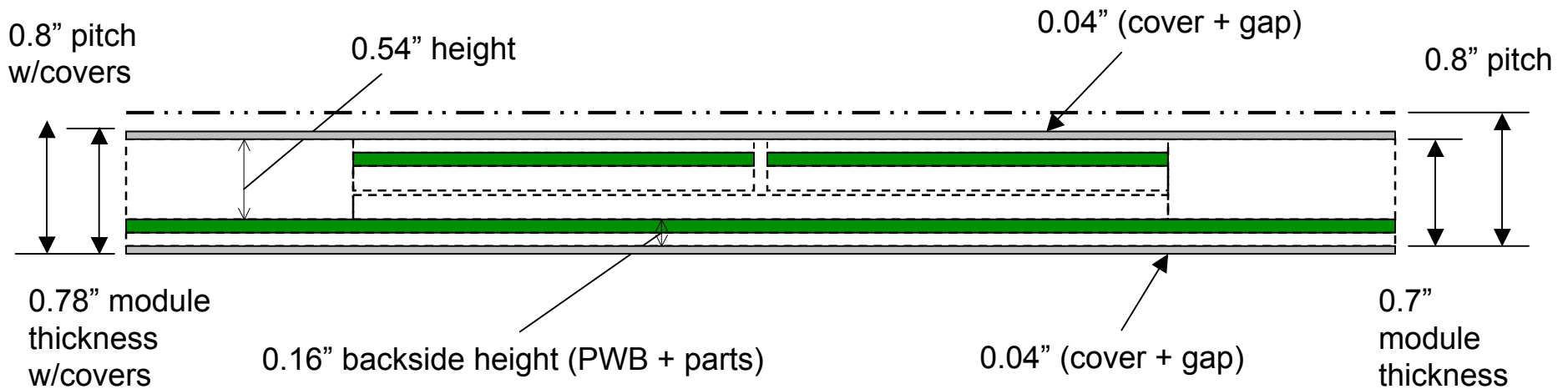


2 Level Maintenance Modules

0.8" vs. 0.85" pitch

Dimensions: 0.8" pitch 2LM



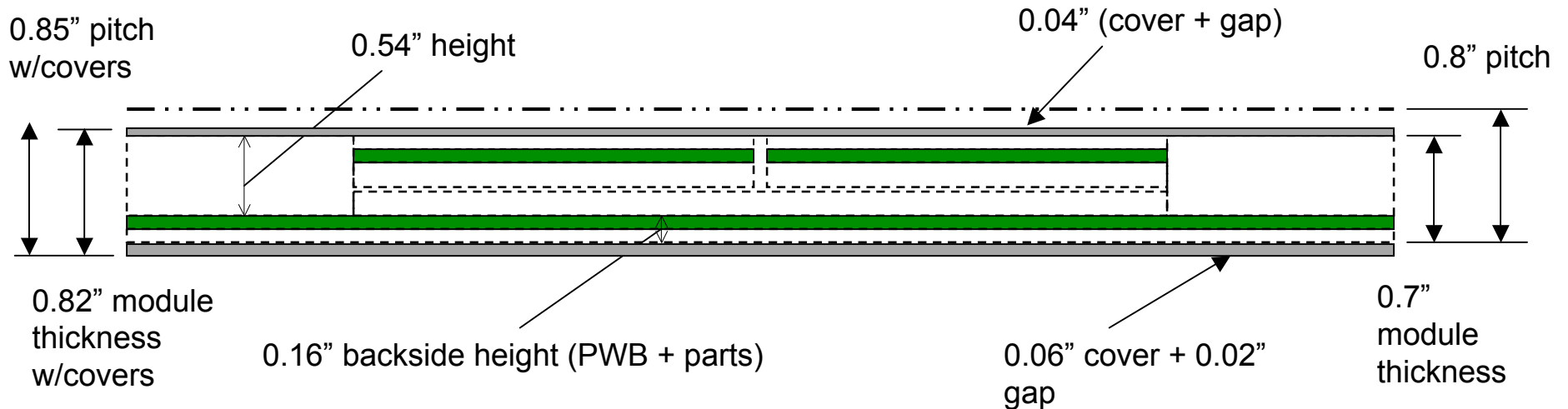
Assumptions

- Existing component heights not to be impacted (i.e. use 0.1" keep-out for covers)
- Minimum 0.03" thick metal covers required for adequate handling protection
- Minimum 0.01" gap required between covers and component envelopes

→ Leaves nominal 0.02" inter-board separation. Tolerance build-up could reduce this.

→ CC and LFT feasible, but not practical. AC probably not feasible.

Dimensions: 0.85" pitch 2LM



Assumptions

- Existing component heights not to be impacted.
- Minimum 0.03" thick metal covers required for adequate handling protection. 0.06" used on back cover for improved CC thermal management. Thickness would be reduced for AC.
- Minimum 0.01" gap required between covers and component envelopes

→ Leaves nominal 0.03" inter-board separation.

→ More flexibility in tolerances. More practical. Improved CC thermal management.

Conclusions

- Use 0.85” pitch only for 2 level maintenance versions of 1101.x cards
- Reduces options to 6 from 9.
Remaining options are: 0.85” AC, CC, LFT and 1” AC, CC, LFT.

Air-cooled

**Conduction-cooled
w/ std wedgelock**

LFT

Update, 12/15 WG call: CW-CEC reconciled that only 0.85" pitch is required. 2LM covers for 0.8" pitch are too restrictive on the secondary-side usage, thermal mgmt, and intra-board spacing.

2LM support for VITA 46 + VITA48 covers 0.85" and 1.0" pitch.

0.8" pitch will remain IEEE1101.x based without 2LM and improved air-, conduction-, LFT- cooling methods. This is what the VITA 46 baseline captures.

- **2LM ESD covers**
- **"standard capacity" component height; enhanced thermal mgmt.**

VITA 46/8
Air Cooled
0.85" pitch

VITA 46/8
Conduction Cooled
0.85" pitch

VITA 46/8
LFT
0.85" pitch

0.85"

- **2LM ESD covers**
- **"high-capacity" backside thermal mgmt and component height**

VITA 46/8
Air Cooled
1.0" pitch

VITA 46/8
Conduction Cooled
1.0" pitch

VITA 46/8
LFT
1.0" pitch

1.0"