

Does Load Pull without harmonic Tuners make sense?

Of course not !

If you measure efficiency at small signal, the response is flat falling off at higher frequencies, because of decreasing device gain and parasitics. If you measure in nonlinear regime using a wideband (also called "fundamental") tuner, you get an waving response.

Why?

Very simply, because as you tune with a wideband tuner, the harmonic impedance is closer or farther away from the optimum, and you have no control of that. If you use a harmonic tuner (MPT) though, you can have the harmonic impedance always optimized and then the efficiency response becomes flat over frequency.

Since Load Pull is normally used at compression, then of course, not using a harmonic tuner is nonsense.

See also AN-56 (Harmonic Effects in Load Pull using Wideband Tuners), August 2003(*).

(*Notice: AN-56 deals with harmonic rejection tuners (PHT) because in 2003 the multi-harmonic tuners MPT were not yet invented.

The analysis and the conclusions of the 2003 AN-56 are, of course, valid today as well.