How to Use P1–P2 and P1–C1 Satellite DCB Information

The following table gives the corrections due to satellite-specific DCBs for the most important linear combinations derived from various combinations of code observable types:

LC	P1/P2	C1/C2	C1/P2
L1	$+1.55 \cdot B_{P1-P2}$	$+1.55 \cdot B_{P1-P2} \quad +B_{P1-C1}$	$+1.55 \cdot B_{P1-P2} \quad +B_{P1-C1}$
L2	$+2.55 \cdot B_{P1-P2}$	$+2.55 \cdot B_{P1-P2} \quad +B_{P1-C1}$	$+2.55 \cdot B_{P1-P2}$
L3	0	$+B_{P1-C1}$	$+2.55 \cdot B_{P1-C1}$
L4	$-B_{P1-P2}$	$-B_{P1-P2}$	$-B_{P1-P2} \quad +B_{P1-C1}$
L5	$-1.98 \cdot B_{P1-P2}$	$-1.98 \cdot B_{P1-P2} \quad +B_{P1-C1}$	$-1.98 \cdot B_{P1-P2} \quad +4.53 \cdot B_{P1-C1}$
L6	0	$-B_{P1-C1}$	$-0.56 \cdot B_{P1-C1}$

L3, L4, L5, and L6 denote the ionosphere-free, geometry-free, wide-lane, and “Melbourne-Wübbena” LC, respectively (following the notation used in the Bernese GPS Software).

The factors involved are computed as $\nu_2^2/(\nu_1^2 - \nu_2^2) = 1.546$, $\nu_1^2/(\nu_1^2 - \nu_2^2) = 2.546$, $\nu_1\,\nu_2/(\nu_1^2 - \nu_2^2) = 1.984$, $\nu_1/(\nu_1 - \nu_2) = 4.529$, and $\nu_1/(\nu_1 + \nu_2) = 0.562$, where ν_1 and ν_2 are the basic carrier frequencies.